FILE COPY

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type I Data Package

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

Project: Olin Wilmington, MA Superfund Site/6107090016
Water Samples
Collected on 06/06/11

SDG# OLN70

CHECKED FOR COMPLETENESS
OF PARAMETERS ORDERED BY:

GROUP	SAMPLE NUMBERS
1250154	6308068-6308076

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** 06/28/2011

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Nicole Maljovec at Ext. 1537.

Total Number of Pages 257

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Table of Contents for SDG# OLN70

Lancaster Laboratories
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Sample Reference List for SDG Number OLN70 with a Data Package Type of I

12670 - Olin Corporation

Project: Olin Wilmington, MA Superfund Site/6107090016

Lab Sample Number	Lab Sample Code	Client Sample Description
6308068	SD1--	OC-SW-MMB-SW/SD-1-XXX Grab Water
6308069	SD1--	OC-SW-MMB-SW/SD-1-XMS Grab Water
6308070	SD1--	OC-SW-MMB-SW/SD-1-MSD Grab Water
6308071	SD1-D	OC-SW-MMB-SW/SD-1-DUP Grab Water
6308072	SD4--	OC-SW-MMB-SW/SD-4-XXX Grab Water
6308073	SD9--	OC-SW-MMB-SW/SD-9-XXX Grab Water
6308074	PZ16R	OC-SW-PZ-16RR-XXX Grab Water
6308075	PZ17R	OC-SW-PZ-17RR-XXX Grab Water
6308076	-SD-1	OC-SW-SD-1-XXX Grab Water

12620/1250154/6308068-76

MACTEC

Lancaster
Page 2 of 2

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) AG	Alkylphenols (WS-MS-0010)* SA AG	Cr+6 (3060A / 7199) G	DMF (Mod 8033 - GC/NPD) V	Ethanolic Anhydride (acid) (Mod 8000 - HPLC)* AG	Formaldehyde/Acetaldehyde (SW 846 8315A)* AG	Dipet / Kempore (E000B - HPLC) Perchlorate (E350) P V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) V	Cr+6 (7199) Zn AV	DMF (Mod 8033 - GC/NPD) G	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) AG
OC-SW-MMB-SW/SD-1-MSD	6/6/2011 1:00:00 PM	T	MS	SW	G	2								X			
OC-SW-MMB-SW/SD-1-XMS	6/6/2011 1:00:00 PM	T	MS	SW	G	2								X			
OC-SW-MMB-SW/SD-1-XXX	6/6/2011 1:00:00 PM	T	FS	SW	G	2								X			
OC-SW-MMB-SW/SD-4-XXX	6/6/2011 4:00:00 PM	T	FS	SW	G	2								X			
OC-SW-MMB-SW/SD-9-XXX	6/6/2011 11:00:00	T	FS	SW	G	2								X			
OC-SW-PZ-16RR-XXX	6/6/2011 1:05:00 PM	T	FS	SW	G	4							X	X			
OC-SW-PZ-17RR-XXX	6/6/2011 1:45:00 PM	T	FS	SW	G	4							X	X			
OC-SW-SD-1-XXX	6/6/2011 12:15:00	T	FS	SW	G	4							X	X			

<--Preservative Type (4)
<--Bottle Type (5)

Comments (Special Instructions)

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved S = SPLP, C = TCLP N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater SW = Surface Water, DW = Drinking Water SO = Soil SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid PR = Product, O = Oil

4.) Preservation Type HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass AV = 40mL VOA Amber Glass Vial

Cr+6 = 24 hour hold time

Formaldehyde = 3 day hold time

Relinquished: _____ ***Date:*** 6/6/11 ***Time:*** 1730 ***Received:*** _____ ***Date:*** __/__/__ ***Time:*** _____

Relinquished: _____ ***Date:*** __/__/__ ***Time:*** _____ ***Received:*** _____ ***Date:*** 6/7/11 ***Time:*** 1015

Cooler ? Y / N	MADEP Requirement
	Samples Iced? Y / N
Temp @ receipt: 5.2 Deg C	
Preservation / pH checked? Y / N	
By: _____ Date: 6/7/11	

12670/125054/6309069-76

Client:	Olin Corporation	Client Project #:	6107090016
Address:	3855 North Ocoee St. Suite 200 Cleveland, TN 37312	Work Site ID: Reports Sent To:	Wilmington, MA Steve Morrow
Phone:	423-336-4511	Fax: 423-336-1466	Email SGMorrow@olin.com Email Rpt:___

INVOICE INFO — Shaded Areas for office use only

Company Name: Olin Corp

Company Contact: ERG Accounts Payable

Address: Same as Client

Phone: Email

Lancaster
Page 1 of 2

Requested Turnaround Time (SPECIFY): Standard___ Rush___ (Lab Approval Required)

Regulatory Programs: MADEP MCP___ Superfund ___

Report Requirements Level IV Package ___ Level II Package ___

EDD Requirements: MACTEC EQUIS EZ EDD

Job # ___ Quote # ___

Lab SDG # ___ PO # ___

MACTEC

Sample ID	Date/Time Collected	Fraction (1)	QC Code (2)	Sample Matrix (3)	Composite (C) or Grab (G)	Total # of Containers	NDMA/NDPA (Mod 521) AG	Alkylphenols (WS MS-0010)* SA AG	Cr+6 (3060A / 7199) G	DMF (Mod 8033 - GC/NPD) V	Phthalic Anhydride (acid) (Mod 8000 - HPLC)* AG	Formaldehyde/Acetaldehyde (SW-846 8315A)* AG	Dpex / Kempore (8000B - HPLC) Perchlorate (6850) P V	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) V	Cr+6 (7199) Zn AV	DMF (Mod 8033 - GC/NPD) G	Hydrazine, MMH, UDMH (Mod 8315 LC/MS/MS) AG
OC-SW-ISCO-1-DUP	6/6/2011 2:35:00 PM	T	FD	SW	G	4							X	X			
OC-SW-ISCO-1-MSD	6/6/2011 2:35:00 PM	T	MS	SW	G	4							X	X			
OC-SW-ISCO-1-XMS	6/6/2011 2:35:00 PM	T	MS	SW	G	4							X	X			
OC-SW-ISCO-1-XXX	6/6/2011 2:35:00 PM	T	FS	SW	G	4							X	X			
OC-SW-ISCO-2-XXX	6/6/2011 11:00:00	T	FS	SW	G	4							X	X			
OC-SW-MMB-SW/SD-10-XXX	6/6/2011 3:20:00 PM	T	FS	SW	G	2								X			
OC-SW-MMB-SW/SD-1-DUP	6/6/2011 1:00:00 PM	T	FD	SW	G	2								X			

<--Preservative Type (4)
<--Bottle Type (5)

Fed Ex Tracking #
867382503790

shipped 1 Cooler w/ice
Fed Ex P1

Comments (Special Instructions)

Special Instructions For Lab

Notes:

1.) Fraction: T = Total, D = Dissolved, S = SPLP, C = TCLP, N = Not Applicable

2.) QC Codes: FS = Field Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike, MSD = Matrix Spike Duplicate, PE = Performance Evaluation Sample, FB = Field Blank

3.) Sample Matrix: GW = Groundwater, SW = Surface Water, DW = Drinking Water SO = Soil, SD = Sediment, BW = Blank Water, NAL = Non-Aqueous Liquid, PR = Product, O = Oil

4.) Preservation Type: HA = Hydrochloric Acid, NI = Nitric Acid, SA = Sulfuric Acid, SH = Sodium Hydroxide, Zn = Zinc Acetate, ME = Methanol, DI = DI Water

5.) Bottle Type: G = Glass, P = Plastic, V = 40mL VOA Glass Vial, AG = Amber Glass, AV = 40mL VOA Amber Glass Vial

Cr+6 = 24 hour hold time

Formaldehyde = 3 day hold time

Relinquished: [signature] Date: 6/6/11 Time: 1730 Received: ___ Date: __/__/__ Time: ___

Relinquished: ___ Date: __/__/__ Time: ___ Received: [signature] Date: 6/7/11 Time: 1015

Cooler ? Y / N	MADEP Requirement
	Samples Iced? Y / N
Temp @ receipt: 1-0 Deg C	
Preservation / pH checked? Y / N	
By: ___ Date: 6/6/11	

Lancaster Laboratories

Environmental Sample Administration
Receipt Documentation Log

Client/Project: MACTEC

Date of Receipt: 6/7/11

Time of Receipt: 1015

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	070951	2.8	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 1454 **Date/Time:** 6/7/11 / 1135

Issued by Dept. 6042 Management

2174.06

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02726 Opex in Water

Water samples are pH adjusted to 9 with hydroxide solution. Filtration is performed followed by HPLC analysis. Separation is accomplished using a C18 column and ACN/phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

02727 Kempore in Water

Water samples are analyzed using a solid phase cleanup procedure followed by filtration and HPLC analysis. Separation is accomplished using a C18 column and phosphate buffer mobile phase. A UV detector at 230 nm is used for quantitation.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8000B, December 1996.

10342 Hydrazines in Water

An aliquot of the sample is derivatized and directly analyzed by HPLC/MS/MS.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8315A modified, December 1996.

Lancaster Laboratories

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

June 20, 2011

Project: Olin Wilmington, MA Superfund Site/6107090016

Submittal Date: 06/07/2011
Group Number: 1250154
SDG: OLN70
PO Number: REWI0012
Release Number: ERRE9813
State of Sample Origin: MA

Client Sample Description	Lancaster Labs (LLI) #
OC-SW-MMB-SW/SD-1-XXX Grab Water	6308068
OC-SW-MMB-SW/SD-1-XMS Grab Water	6308069
OC-SW-MMB-SW/SD-1-MSD Grab Water	6308070
OC-SW-MMB-SW/SD-1-DUP Grab Water	6308071
OC-SW-MMB-SW/SD-4-XXX Grab Water	6308072
OC-SW-MMB-SW/SD-9-XXX Grab Water	6308073
OC-SW-PZ-16RR-XXX Grab Water	6308074
OC-SW-PZ-17RR-XXX Grab Water	6308075
OC-SW-SD-1-XXX Grab Water	6308076

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	MACTEC	Attn: Kelly Chatterton
ELECTRONIC COPY TO	MACTEC	Attn: Chris Ricardi
ELECTRONIC COPY TO	Olin Chemicals	Attn: James Cashwell
1 COPY TO	Data Package Group	

OLN70 6006

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Lancaster Laboratories

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,

Dorothy M. Love

Dorothy M. Love
Group Leader

OLH78 6887

Lancaster Laboratories, Inc.
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Lancaster Laboratories

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-1-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308068
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD1-- SDG#: OLN70-01BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 20:00	Meng Yu	1

OLN70 0009

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-1-XMS Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308069
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD1-- SDG#: OLN70-01MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	57	0.50	0.25	1
10342	Hydrazine	302-01-2	12	0.10	0.050	1
10342	Methylhydrazine	60-34-4	44	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 20:47	Meng Yu	1

OLN70 0010

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-1-MSD Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308070
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD1-- SDG#: OLN70-01MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	55	0.50	0.25	1
10342	Hydrazine	302-01-2	12	0.10	0.050	1
10342	Methylhydrazine	60-34-4	44	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 21:03	Meng Yu	1

OLN70 0011

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-1-DUP Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308071
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD1-D SDG#: OLN70-02FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 21:50	Meng Yu	1

OLN70 0012

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-4-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308072
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 16:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD4-- SDG#: OLN70-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:06	Meng Yu	1

OLN70 P013

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-MMB-SW/SD-9-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308073
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 11:00

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

SD9-- SDG#: OLN70-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:21	Meng Yu	1

OLN70 0014

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-PZ-16RR-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308074
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:05

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

PZ16R SDG#: OLN70-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8000B**		**ug/l**	**ug/l**	**ug/l**	
02727	Kempore in Water	123-77-3	N.D.	1,100	1,100	1
	The project QA/QC requirements were not met. The individual response in one or more of the continuing calibration standards is outside the 15%D criteria on one of the analytical columns. The response on the second column meets the %D criteria, and therefore all data is reported from this column (primary). The sample raw data identifies the column used to report the analyte. When there is a detection on the primary column and no detection on the confirmation column, the reporting limit is raised since the confirmation column has a low response for the continuing calibration standard. This effect is attributed to the sample matrix.					
02726	Opex in Water	101-25-7	N.D.	100	20	1
Misc. Organics	**SW-846 8315A modified**		**ug/l**	**ug/l**	**ug/l**	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	111580040A	06/09/2011 20:56	Michele D Hamilton	1
02726	Opex in Water	SW-846 8000B	1	111610022A	06/10/2011 22:04	James H Place	1
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:37	Meng Yu	1

OLN70 0015

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Analysis Report

Lancaster Laboratories

Sample Description: OC-SW-PZ-17RR-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308075
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 13:45

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

PZ17R SDG#: OLN70-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8000B**		ug/l	ug/l	ug/l	
02727	Kempore in Water	123-77-3	1,100	1,000	230	1
02726	Opex in Water	101-25-7	N.D.	100	20	1

The project QA/QC requirements were not met.
The sample was injected numerous times. Each time the response for opex in the calibration check standard injected after the sample was outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	N.D.	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	111580040A	06/09/2011 21:02	Michele D Hamilton	1
02726	Opex in Water	SW-846 8000B	2	111610022A	06/10/2011 22:18	Michele D Hamilton	1
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 22:53	Meng Yu	1

OLN70 0016

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

Sample Description: OC-SW-SD-1-XXX Grab Water
Wilmington MA Superfund Site

LLI Sample # WW 6308076
LLI Group # 1250154
Account # 12670

Project Name: Olin Wilmington, MA Superfund Site/6107090016

Collected: 06/06/2011 12:15

Submitted: 06/07/2011 10:15
Reported: 06/20/2011 13:00

Olin Corporation
Suite 200
3855 North Ocoee Street
Cleveland TN 37312

-SD-1 SDG#: OLN70-07*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8000B**		ug/l	ug/l	ug/l	
02727	Kempore in Water	123-77-3	1,400	1,000	230	1
02726	Opex in Water	101-25-7	N.D.	100	20	1
	The sample was injected numerous times. Each time the response for opes in the calibration check standard injected after the sample was outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.					
Misc. Organics	**SW-846 8315A modified**		ug/l	ug/l	ug/l	
10342	1,1-Dimethylhydrazine	57-14-7	N.D.	0.50	0.25	1
10342	Hydrazine	302-01-2	0.076 J	0.10	0.050	1
10342	Methylhydrazine	60-34-4	N.D.	0.50	0.25	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02727	Kempore in Water	SW-846 8000B	1	111580040A	06/09/2011 21:08	Michele D Hamilton	1
02726	Opex in Water	SW-846 8000B	2	111610022A	06/10/2011 22:24	Michele D Hamilton	1
10342	Hydrazines in Water	SW-846 8315A modified	1	11161001	06/10/2011 23:09	Meng Yu	1

OLN70 0017

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

*=This limit was used in the evaluation of the final result

Kempore Data

Case Narrative
Conformance/Nonconformance
Summary

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Pesticide Residue Analysis

Fraction: Kempore

Kempore in Water

Sample #	Client ID	Matrix Liquid	Matrix Solid	Comments
6308074	OC-SW-PZ-16RR-XXX	X		
6308075	OC-SW-PZ-17RR-XXX	X		
6308076	OC-SW-SD-1-XXX	X		

See QC Reference List for Associated Batch QC Samples

Note: Form 10s could not be generated for LCS40158 and LCSD40158.

SAMPLE PREPARATION:

No problems were encountered with the preparation of the samples.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

(Sample number(s): 6308074: Analysis: 02727)
The project QA/QC requirements were not met. The individual response in one or more of the continuing calibration standards is outside the 15%D criteria on one of the analytical columns. The response on the second column meets the %D criteria, and therefore all data is reported from this column (primary). The sample raw data identifies the column used to report the analyte. When there is a detection on the primary column and no detection on the confirmation column, the reporting limit is raised since the confirmation column has a low response for the continuing calibration standard. This effect is attributed to the sample matrix.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Site specific matrix QC samples were not submitted for this SDG. The batch matrix QC was performed on samples from another project. Therefore the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

All QC is within specification.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit

OLN70 0028

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Pesticide Residue Analysis

Fraction: Kempore

MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 6/24/2011 (Date) by M. Susan Kreider
M. SUSAN KREIDER
SENIOR SPECIALIST

Quality Control and Calibration Summary Forms

Lancaster Laboratories

Quality Control Reference List
Pesticide Residue Analysis

CLIENT: Olin Corporation
SDG: OLN70

Fraction: Kempore

Analysis	Batch Number	Sample Number	Analysis Date
Kempore in Water	111580040A	PBLK40158	06/09/2011 19:41:00
		LCS40158	06/09/2011 19:47:00
		LCSD40158	06/09/2011 19:54:00
		6308074	06/09/2011 20:56:00
		6308075	06/09/2011 21:02:00
		6308076	06/09/2011 21:08:00

OLN70 0023

Lancaster Laboratories

Quality Control Summary
Method Blank
Pesticide Residue Analysis
SDG: OLN70
Matrix: LIQUID

Fraction: Kempore

111580040 / PBLK40158 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Kempore in Water	06/09/11	N.D.	ug/l	230	1000

OLN70 P824

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70
Matrix: LIQUID

Pesticide Residue Analysis

Fraction: Kempore

LCS: LCS40158 LCSD: LCSD40158	Batch: **111580040A** (Sample number(s): 6308074-6308076)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Kempore in Water	9500	8000	8300	84	87	70-130	4	30

OLN70 0025

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Calibration File: 1K11160

GC Column (1): SUP PAH ID: 250 (mm) Update File:

Date(s) Analyzed: 6/9/2011 6/9/2011

COMPOUND	RT OF STANDARDS					MIDPOINT (Level 1)	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RT	FROM	TO
Kempore	2.06	2.05	2.06	2.10	2.13	2.06	1.91	2.21

6/10/11

OLN70 8826

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Calibration File: 1K11160

GC Column (1) : SUP PAH ID: 250 (mm) Date(s) Analyzed: 6/9/2011 6/9/2011

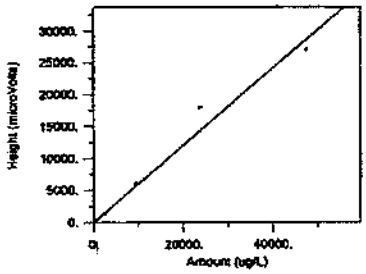
COMPOUND	CALIBRATION FACTORS						
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD
Kempore	4.90E-01	5.54E-01	6.40E-01	7.56E-01	5.68E-01	6.01E-01	16.9

Average % RSD: 16.9

Calibration File Name: **C:\CPWIN\DATA1\1K11160.CAL** Version = 8
External standard calibration
Standard injection volume = 1
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 500
Amount units = ug/L
1 components with 5 levels each

1 Kempore
Retention time = 2.060 min., Search window = 0.150 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	950.600	465.3	0.4895011	1K11160.08A	6/9/2011 7:34:45
2	2376.500	1316.6	0.5540047	1K11160.07A	6/9/2011 7:29:04
3	9506.000	6082.4	0.6398451	1K11160.06A	6/9/2011 7:28:40
4	23765.000	17960.2	0.7557403	1K11160.05A	6/9/2011 7:28:17
5	47530.000	27003.1	0.5681264	1K11160.04A	6/9/2011 7:27:53



Calibration formula: Y = 0.601 X
Fit type = Avg CF with equal weighting, forced to origin
Coefficient of determination = 0.9697, Average error = 12.82%
Average CF = 0.6014 with RSD = 16.87%

GLN78: 8026

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories   Contract:

Lab Code: Case No.:   SAS No.:   SDG No.:

Instrument: X3593B   Calibration File: 1K11160B

GC Column (2) : CapCell CN   ID: 250 (mm)   Update File:

Date(s) Analyzed: 6/9/2011   6/9/2011

COMPOUND	RT OF STANDARDS					~~MIDPOINT~~ Level 1	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RT	FROM	TO
Kempore	4.75	4.71	4.70	4.63	4.57	4.75	4.60	4.90

JRisk 6/10/11

GLN78 0029

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories　　Contract:

Lab Code:　　Case No.:　　SAS No.:　　SDG No.:

Instrument: X3593B　　Calibration File: 1K11160B

GC Column (2) : CapCell CN　　ID: 250 (mm)　　Date(s) Analyzed: 6/9/2011　6/9/2011

COMPOUND	CALIBRATION FACTORS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD
Kempore	3.50E-01	3.93E-01	5.22E-01	6.55E-01	5.73E-01	4.99E-01	25.3

-Linear

Average % RSD: 25.3

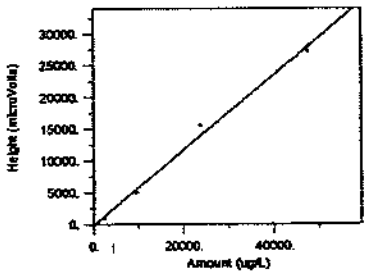
HSCL 6/10/11

0LR78 0038

Calibration File Name: **C:\CPWIN\DATA1\1K11160B.CAL** Version = 15
External standard calibration
Standard injection volume = 1
No sample weight correction
Area reject threshold = 0
Reference peak area reject threshold = 500
Amount units = ug/L
1 components with 5 levels each

1 Kempore
Retention time = 4.745 min., Search window = 0.150 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	950.600	333.1	0.3503657	1K11160B.08A	6/9/2011 7:35:00
2	2376.500	934.4	0.3931739	1K11160B.07A	6/9/2011 7:29:19
3	9506.000	4962.9	0.5220817	1K11160B.06A	6/9/2011 7:28:54
4	23765.000	15560.3	0.6547587	1K11160B.05A	6/9/2011 7:28:32
5	47530.000	27219.8	0.572687	1K11160B.04A	6/9/2011 7:28:08



Calibration formula: Y = 0.59 X + -130.763
Fit type = Linear with equal weighting
Coefficient of determination = 0.9931, Average error = 14.62%
Average CF = 0.4986 with RSD = 25.27%

QLM70 0031

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Init. Calib Date(s): 06/09/11 06/09/11

GC Column (1) : SUP PAH ID: 250 (mm) Date Analyzed: 06/09/11

Lab File ID: 1K11160.20R Time Analyzed: 20:43

Lab Standard ID: KEMP3EO Initial Calibration: 1K11160

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	2.03	1.91	2.21	9074.31	9506.00	-4.5
					Average of %D:	4.5

OLN70 0032

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593B Init. Calib Date(s): 06/09/11 06/09/11

GC Column (2) : CapCell CN ID: 250 (mm) Date Analyzed: 06/09/11

Lab File ID: 1K11160B.20R Time Analyzed: 20:43

Lab Standard ID: KEMP3EO Initial Calibration: 1K11160B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	4.90	4.60	4.90	7827.94	9506.00	-17.7
					Average of %D:	17.7

GLN78 8833

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593A Init. Calib Date(s): 06/09/11 06/09/11

GC Column (1) : SUP PAH ID: 250 (mm) Date Analyzed: 06/09/11

Lab File ID: 1K11160.31R Time Analyzed: 21:52

Lab Standard ID: KEMP3EP Initial Calibration: 1K11160

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	2.02	1.91	2.21	8562.45	9506.00	-9.9
					Average of %D:	9.9

01N78 3034

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: X3593B Init. Calib Date(s): 06/09/11 06/09/11

GC Column (2) : CapCell CN ID: 250 (mm) Date Analyzed: 06/09/11

Lab File ID: 1K11160B.31R Time Analyzed: 21:52

Lab Standard ID: KEMP3EP Initial Calibration: 1K11160B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Kempore	4.93	4.60	4.90	7381.07	9506.00	-22.4
					Average of %D:	22.4

OLM70 0035.

8D
ANALYTICAL SEQUENCE

Sequence: 1K11160 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: SUP PAH ID: 250

Instrument: X3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

*	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001	KEMP5AA	KEMP51124C	06/09/2011	19:04:31	1K11160
002	KEMP4AA	KEMP41124C	06/09/2011	19:10:43	1K11160
003	KEMP3AA	KEMP31124C	06/09/2011	19:16:56	1K11160
004	KEMP2AA	KEMP21124C	06/09/2011	19:23:08	1K11160
005	KEMP1AA	KEMP11124C	06/09/2011	19:29:20	1K11160
006	MDKRXAA	MDKRX1124C	06/09/2011	19:35:32	1K11160
007	PBLK40158	BLANKA	06/09/2011	19:41:44	1K11160
008	LCS40158	LCSA	06/09/2011	19:47:57	1K11160
009	LCSD40158	LCSDA	06/09/2011	19:54:10	1K11160
010	PBLK26160	BLANKA	06/09/2011	20:00:23	1K11160
011	LCS26160	LCSA	06/09/2011	20:06:35	1K11160
012	LCSD26160	LCSDA	06/09/2011	20:12:48	1K11160
013	ISC1-	6308055	06/09/2011	20:19:01	1K11160
014	ISC1-	6308056	06/09/2011	20:25:13	1K11160
015	ISC1-	6308057	06/09/2011	20:31:26	1K11160
016	ISC1D	6308058	06/09/2011	20:37:38	1K11160
017	KEMP3EO	KEMP31124C	06/09/2011	20:43:51	1K11160
018	ISC2-	6308059	06/09/2011	20:50:04	1K11160
019	PZ16R	6308074	06/09/2011	20:56:17	1K11160
020	PZ17R	6308075	06/09/2011	21:02:30	1K11160
021	-SD-1	6308076	06/09/2011	21:08:44	1K11160
022	5-XXX	6309550	06/09/2011	21:14:57	1K11160
023	1-XXX	6309553	06/09/2011	21:21:10	1K11160
024	2-XXX	6309554	06/09/2011	21:27:23	1K11160
025	S-XXX	6309555	06/09/2011	21:33:37	1K11160
026	EDSD0	6310720	06/09/2011	21:39:50	1K11160
027	EDSD1	6310721	06/09/2011	21:46:03	1K11160
028	KEMP3EP	KEMP31124C	06/09/2011	21:52:16	1K11160
029	EDSD2	6310722	06/09/2011	21:58:29	1K11160
030	EDSD5	6310723	06/09/2011	22:04:43	1K11160
031	MMB-2	6310724	06/09/2011	22:10:56	1K11160
032	KEMP3EQ	KEMP31124C	06/09/2011	22:17:09	1K11160

*missing 3 conditioner injections

MSK 6/24/11

8D
ANALYTICAL SEQUENCE

Sequence: 1K11160B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CapCell CN ID: 250

Instrument: X3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	06/09/2011	18:45:54	1K11160B
002		CONDITIONER	06/09/2011	18:52:06	1K11160B
003		CONDITIONER	06/09/2011	18:58:19	1K11160B
004	KEMP5AA	KEMP51124C	06/09/2011	19:04:31	1K11160B
005	KEMP4AA	KEMP41124C	06/09/2011	19:10:43	1K11160B
006	KEMP3AA	KEMP31124C	06/09/2011	19:16:56	1K11160B
007	KEMP2AA	KEMP21124C	06/09/2011	19:23:08	1K11160B
008	KEMP1AA	KEMP11124C	06/09/2011	19:29:20	1K11160B
009	MDKRXAA	MDKRX1124C	06/09/2011	19:35:32	1K11160B
010	PBLK40158	BLANKA	06/09/2011	19:41:44	1K11160B
011	LCS40158	LCSA	06/09/2011	19:47:57	1K11160B
012	LCSD40158	LCSDA	06/09/2011	19:54:10	1K11160B
013	PBLK26160	BLANKA	06/09/2011	20:00:23	1K11160B
014	LCS26160	LCSA	06/09/2011	20:06:35	1K11160B
015	LCSD26160	LCSDA	06/09/2011	20:12:48	1K11160B
016	ISC1-	6308055	06/09/2011	20:19:01	1K11160B
017	ISC1-	6308056	06/09/2011	20:25:13	1K11160B
018	ISC1-	6308057	06/09/2011	20:31:26	1K11160B
019	ISC1D	6308058	06/09/2011	20:37:38	1K11160B
020	KEMP3EO	KEMP31124C	06/09/2011	20:43:51	1K11160B
021	ISC2-	6308059	06/09/2011	20:50:04	1K11160B
022	PZ16R	6308074	06/09/2011	20:56:17	1K11160B
023	PZ17R	6308075	06/09/2011	21:02:30	1K11160B
024	-SD-1	6308076	06/09/2011	21:08:44	1K11160B
025	5-XXX	6309550	06/09/2011	21:14:57	1K11160B
026	1-XXX	6309553	06/09/2011	21:21:10	1K11160B
027	2-XXX	6309554	06/09/2011	21:27:23	1K11160B
028	S-XXX	6309555	06/09/2011	21:33:37	1K11160B
029	EDSD0	6310720	06/09/2011	21:39:50	1K11160B
030	EDSD1	6310721	06/09/2011	21:46:03	1K11160B
031	KEMP3EP	KEMP31124C	06/09/2011	21:52:16	1K11160B
032	EDSD2	6310722	06/09/2011	21:58:29	1K11160B
033	EDSD5	6310723	06/09/2011	22:04:43	1K11160B

8D
ANALYTICAL SEQUENCE

Sequence: 1K11160B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CapCell CN ID: 250

Instrument: X3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
034	MMB-2	6310724	06/09/2011	22:10:56	1K11160B
035	KEMP3EQ	KEMP31124C	06/09/2011	22:17:09	1K11160B

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

PZ17R

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Lab Sample ID: 6308075 **Date(s) Analyzed:** 6/7/2011 6/9/2011

Instrument ID (1): X3593A **Instrument ID (2):** X3593B

GC Column (1): **ID:** (mm) **GC Column (2):** **ID:** (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.10	1.91	2.21	1100	
	2	4.63	4.60	4.90	550	66.7

OLN70 8839

FORM X PEST - 1

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

-SD-1

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Lab Sample ID: 6308076 **Date(s) Analyzed:** 6/7/2011 6/9/2011

Instrument ID (1): X3593A **Instrument ID (2):** X3593B

GC Column (1): **ID:** (mm) **GC Column (2):** **ID:** (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Kempore	1	2.12	1.91	2.21	1400	
	2	4.60	4.60	4.90	1100	24.0

OLN70 0048

FORM X PEST - 1

Sample Data

Lancaster Laboratories

LOQ/MDL Summary
Pesticide Residue Analysis

SDG: OLN70

Fraction: Kempore

02727: Kempore in Water Analyte Name	Default MDL	Default LOQ	Units
Kempore in Water	230	1,000	ug/l

OLN70 0842

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PZ16R

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308074

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1K11160.22R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/9/2011

Injection Volume: 35 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	1100	U

OLN70 0043

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308074 RI PZ16R Sample ID: AA **Batchnumber: 111580040A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02727 10342

Analysis Report (A)

Injected on	: JUN 09, 2011 20:56:17
Instrument	: CP09--X3593A
Result file	: 1K11160.22R
Calibration file	: 1K11160.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: JUN 09, 2011 20:56:17
Instrument	: CP09--X3593B
Result file	: 1K11160B.22R
Calibration file	: 1K11160B.CAL
Method file	: KEMPB.MET

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.14	2.21	630	1048.289917

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore			<1000	<230			WC 11100 a-to-B

Units: ug/l

Reviewed by: C [signature] Verified by: Valerie Tomayko

Date: 6/16/11 Date: JUN 17 2011

Valerie Tomayko
Senior Specialist

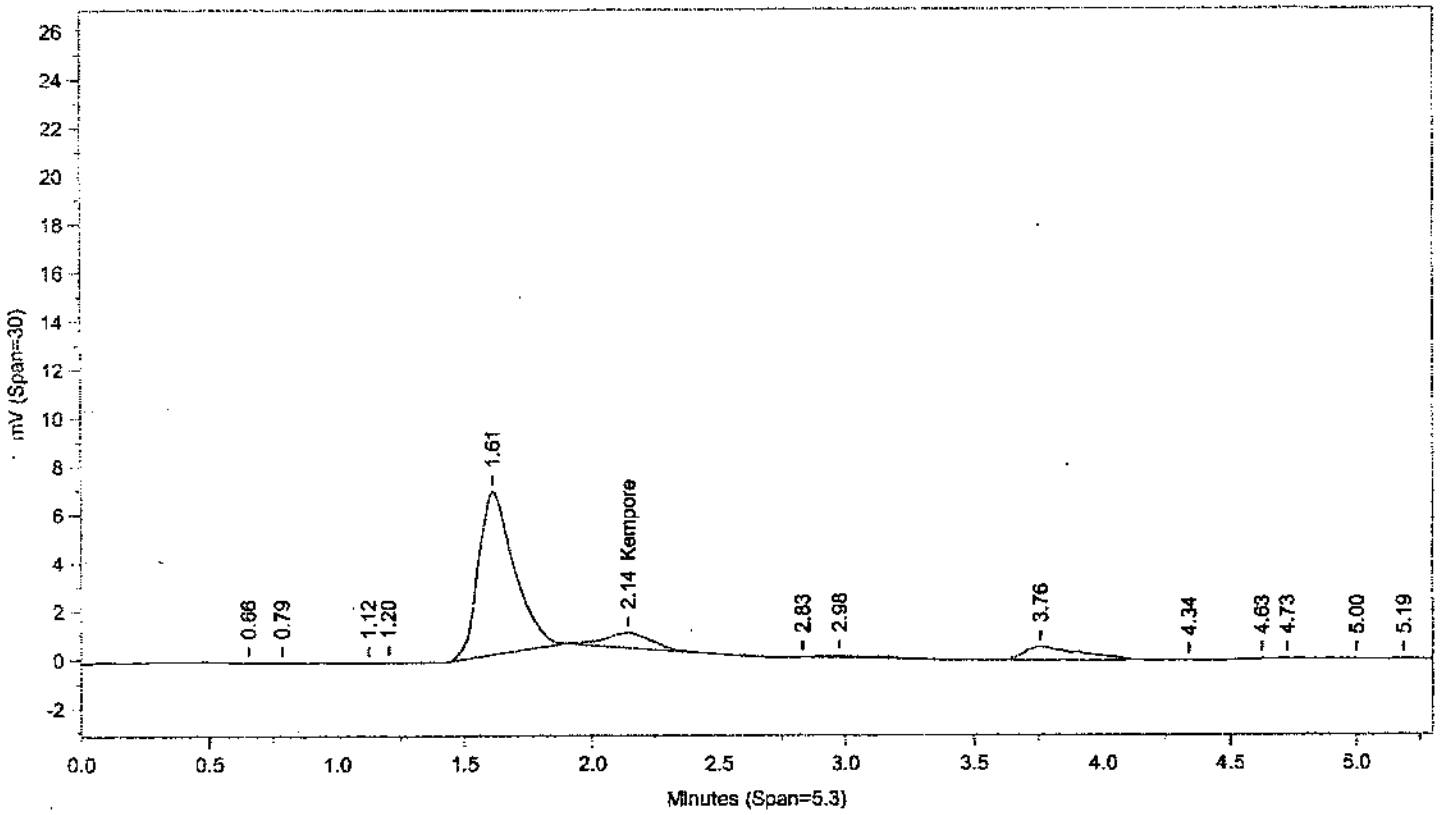
OLN70 0044

%Difference = High - Low Amount divided by the Average times 100

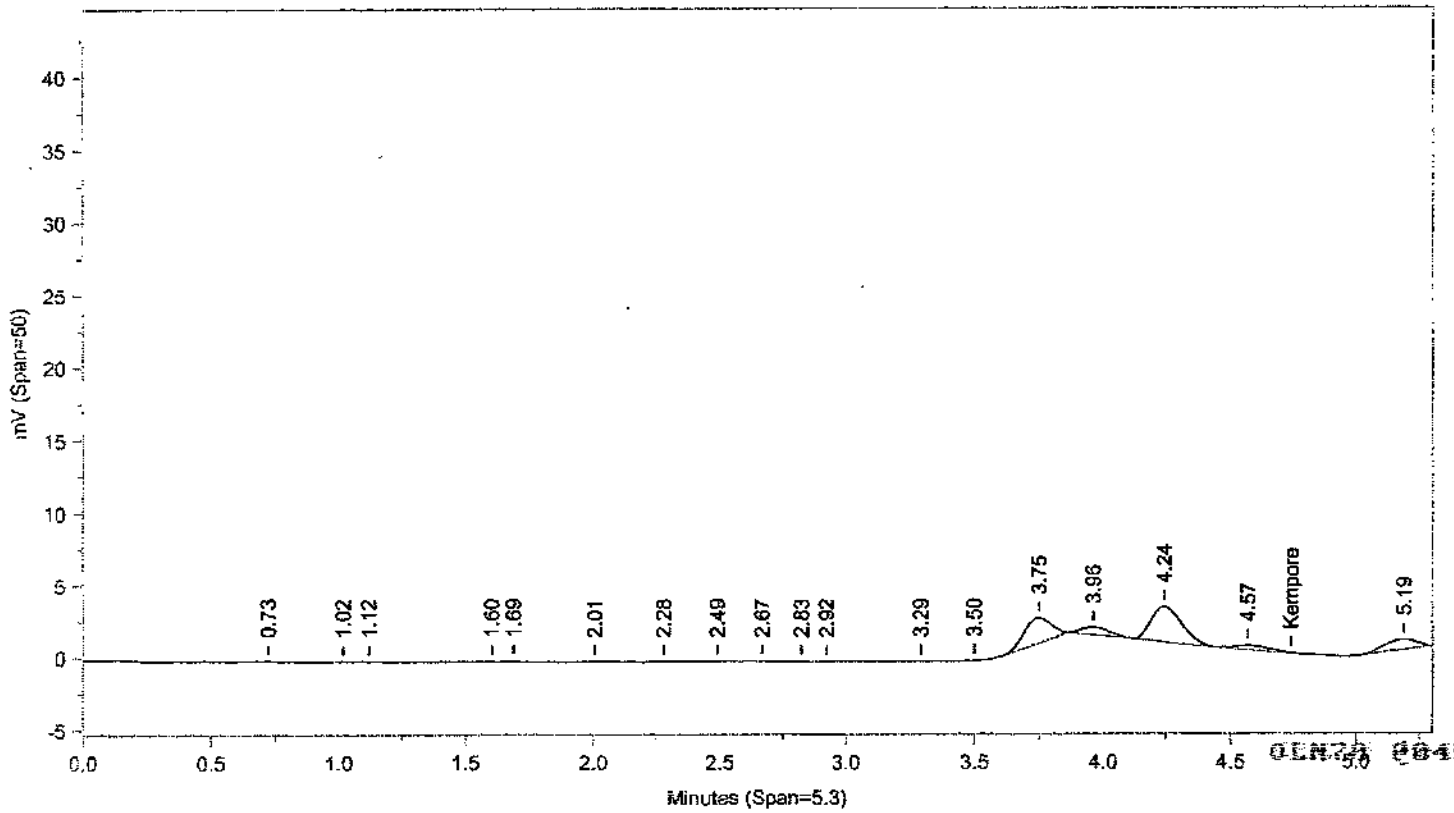
* Recovery outside QC Limits

Printed on: 6/10/11 16:52:28

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\IK11160.22R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 8:56:16 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 8:56:16 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.144	630	1048.29	Kempore			0	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.22A
Area File: C:\CPWIN\DATA1\1K11160B.22A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 9:01:42 PM
File Reported On: 6/9/2011 at 9:01:50 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PZ17R

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308075

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1K11160.23R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/9/2011

Injection Volume: 35 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	1100	P

OLN70 8847

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308075 RI PZ17R Sample ID: AA **Batchnumber: 111580040A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02727 10342

Analysis Report (A)
Injected on : JUN 09, 2011 21:02:30
Instrument : CP09--X3593A
Result file : 1K11160.23R
Calibration file : 1K11160.CAL
Method file : KEMP.MET

Analysis Report (B)
Injected on : JUN 09, 2011 21:02:30
Instrument : CP09--X3593B
Result file : 1K11160B.23R
Calibration file : 1K11160B.CAL
Method file : KEMPB.MET

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.10	2.21	638	1061.152222

Peak name	Min	R.T.	Max	Height	Amount
Kempore	4.60	4.63	4.90	195	552.341797

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	A	1061	<1000	<230			

Units: ug/l

Reviewed by: [signature] Date: 6/16/11

Verified by: Valerie Tomayko Date: JUN 17 2011

Valerie Tomayko
Senior Specialist

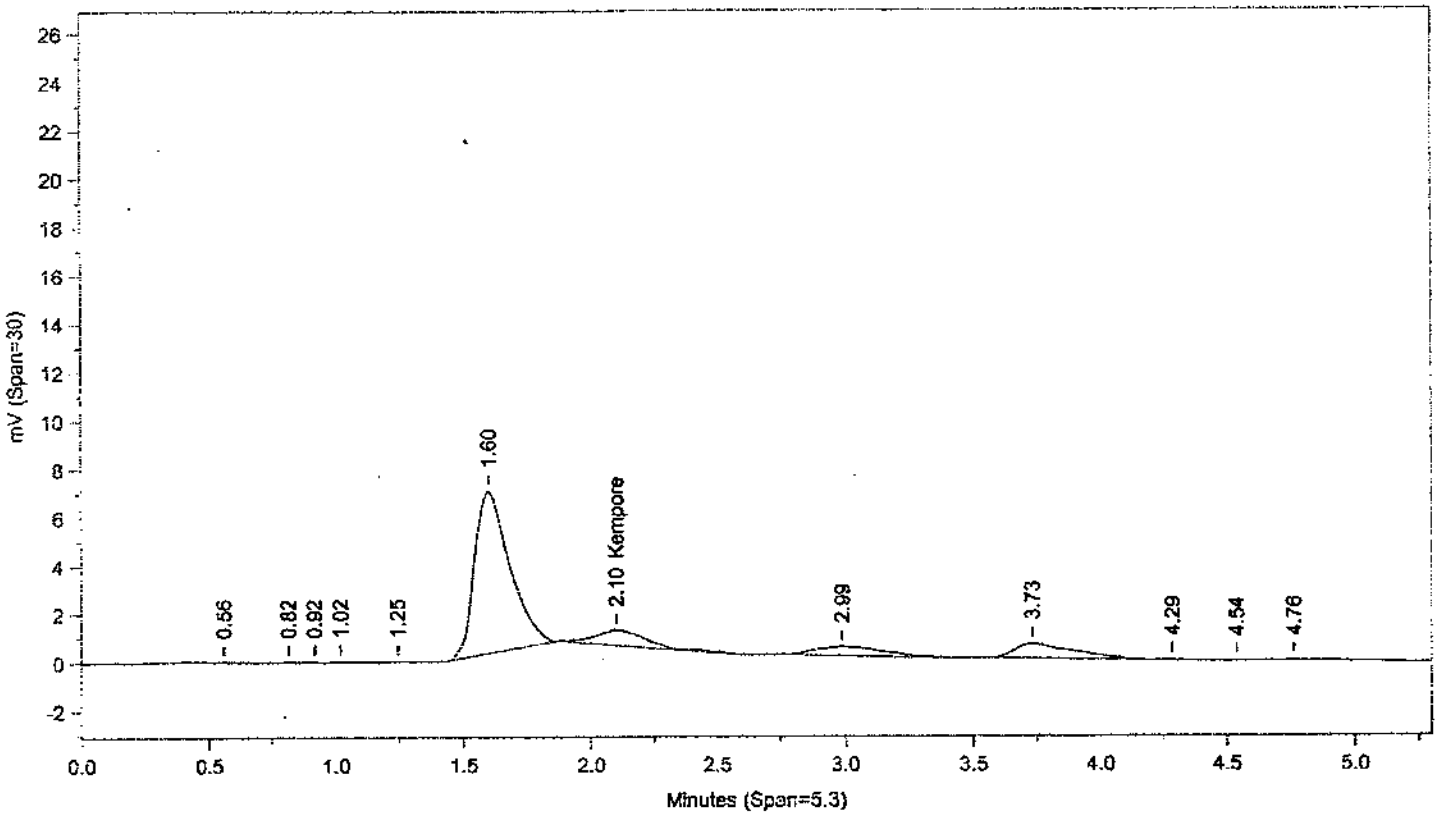
OLN70 9848

%Difference = High - Low Amount divided by the Average times 100

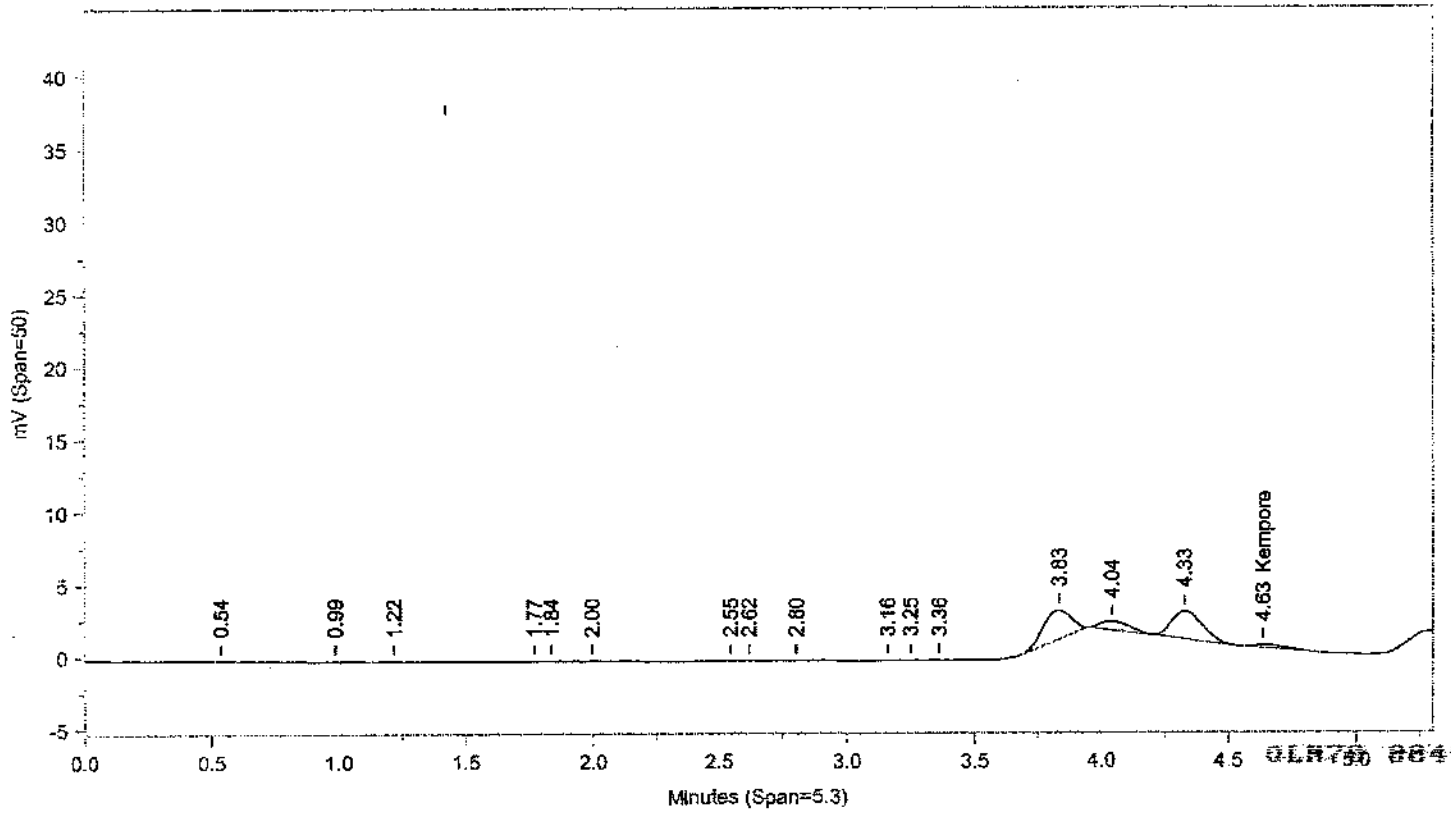
* Recovery outside QC Limits

Printed on: 6/10/11 16:52:46

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.23R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:02:29 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 9:02:29 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.102	638	1061.152	Kempore	4.635	195	552.342	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.23A
Area File: C:\CPWIN\DATA1\1K11160B.23A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 9:07:54 PM
File Reported On: 6/9/2011 at 9:08:03 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. -SD-1

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308076

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1K11160.24R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/9/2011

Injection Volume: 35 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	1400	

OLN70 9851

Lancaster Laboratories Single Component Data Summary

Sample Name: 6308076 RI -SD-1 Sample ID: AA **Batchnumber: 111580040A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02727 10342

Analysis Report (A)

Injected on	: JUN 09, 2011 21:08:44
Instrument	: CP09--X3593A
Result file	: 1K11160.24R
Calibration file	: 1K11160.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: JUN 09, 2011 21:08:44
Instrument	: CP09--X3593B
Result file	: 1K11160B.24R
Calibration file	: 1K11160B.CAL
Method file	: KEMPB.MET

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.12	2.21	838	1394.040649

Peak name	Min	R.T.	Max	Height	Amount
Kempore	4.60	4.60	4.90	502	1072.153320

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	(A)	1394	<1000	<230			

Units: ug/l

Reviewed by: _____ Verified by: Valerie Tomayko

Date: 6/16/11 Date: JUN 17 2011

Valerie Tomayko
Senior Specialist

OLN70: 0852

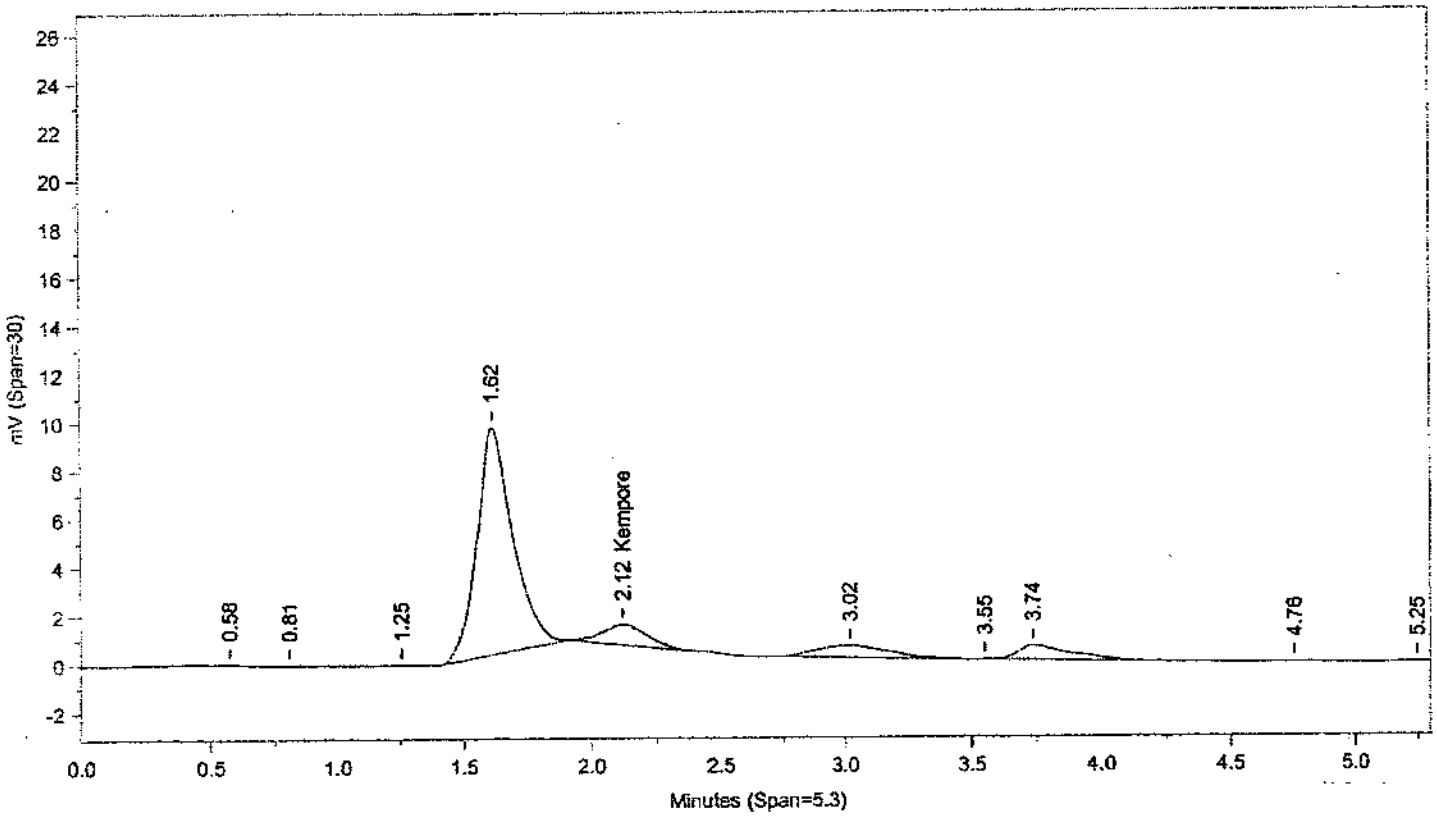
%Difference = High - Low Amount divided by the Average times 100

* Recovery outside QC Limits

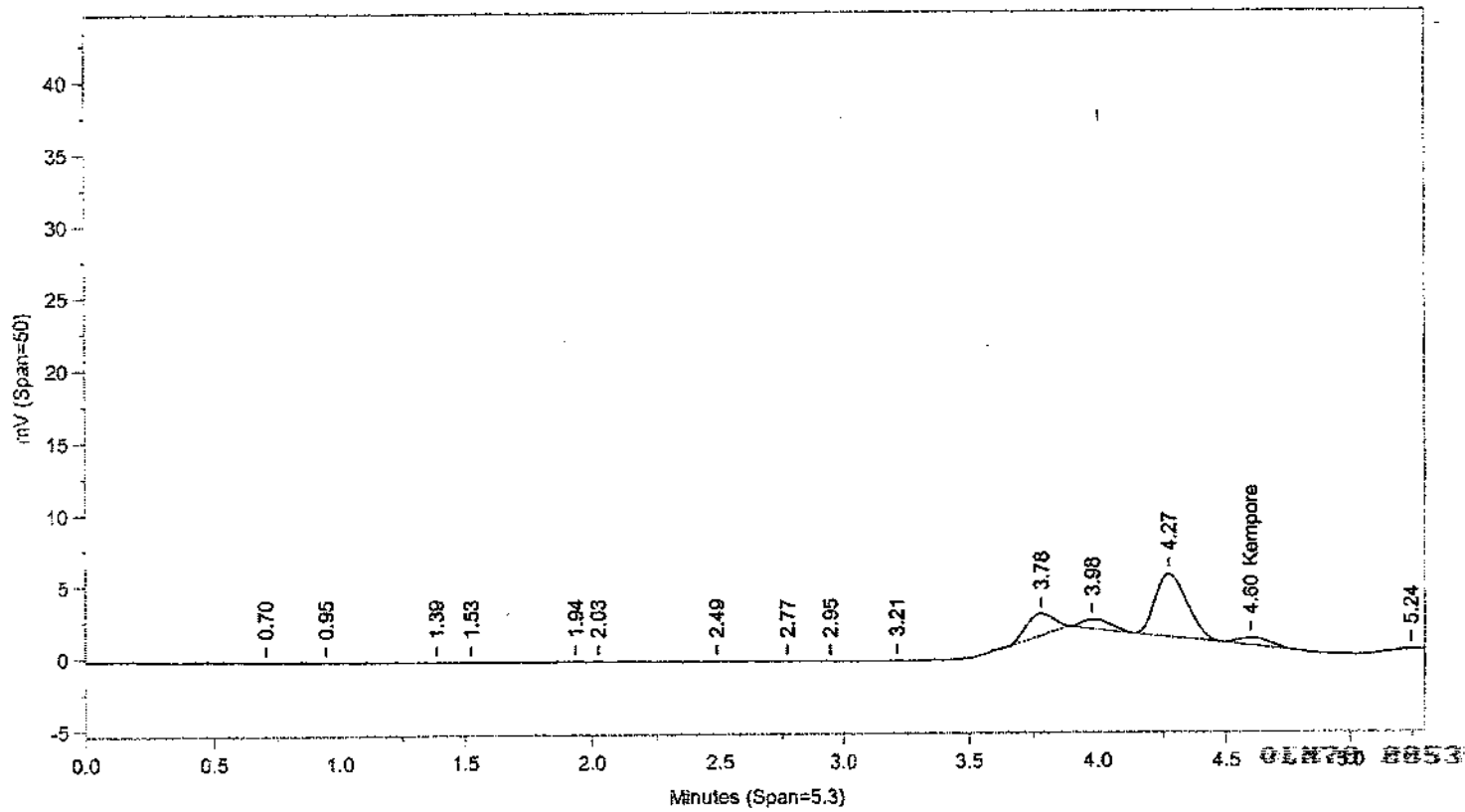
Printed on: 6/10/11 16:53:06

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.24R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:08:43 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 9:08:43 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.124	838	1394.041	Kempore	4.6	502	1072.153	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.24A
Area File: C:\CPWIN\DATA1\1K11160B.24A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 9:14:08 PM
File Reported On: 6/9/2011 at 9:14:17 PM

Standards Data

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\cp9\C-Drive\CPWIN\data1\1K11160.seq

Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \\cp9\C-Drive\CPWIN\data1

Number of Entries: 35

	Samplename	Code	ID	FileName	Method		Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	MISC	AA	1K11160.01R		KEMP.MET	1	1	1	0	1115999999	
2	CONDITIONER	MISC	AA	1K11160.02R		KEMP.MET	1	1	1	0	1115999999	
3	CONDITIONER	MISC	AA	1K11160.03R		KEMP.MET	1	1	1	0	1115999999	
4	KEMP51124C	ICAL	AA	1K11160.04R		KEMP.MET	1	1	1	5	1115999999	
5	KEMP41124C	ICAL	AA	1K11160.05R		KEMP.MET	1	1	1	4	1115999999	
6	KEMP31124C	ICAL	AA	1K11160.06R		KEMP.MET	1	1	1	3	1115999999	
7	KEMP21124C	ICAL	AA	1K11160.07R		KEMP.MET	1	1	1	2	1115999999	
8	KEMP11124C	ICAL	AA	1K11160.08R		KEMP.MET	1	1	1	1	1115999999	
9	MDKRX1124C	ICAL	AA	1K11160.09R		KEMP.MET	1	1	1	0	1115999999	
10	BLANKA 6/7/11 RI	BLK	AA	1K11160.10R		KEMP.MET	10	10	1	0	111580040A	02727
11	LCSA 6/7/11 RI	LCS	AA	1K11160.11R		KEMP.MET	10	10	1	0	111580040A	02727
12	LCSDA 6/7/11 RI	LCSD	AA	1K11160.12R		KEMP.MET	10	10	1	0	111580040A	02727
13	BLANKA 6/9/11	BLK	AA	1K11160.13R		KEMP.MET	10	10	1	0	111600026A	02727
14	LCSA 6/9/11	LCS	AA	1K11160.14R		KEMP.MET	10	10	1	0	111600026A	02727
15	LCSDA 6/9/11	LCSD	AA	1K11160.15R		KEMP.MET	10	10	1	0	111600026A	02727
16	6308055 RI	T	AA	1K11160.16R		KEMP.MET	10	10	1	0	111580040A	02727
17	6308056MS RI	MS	AA	1K11160.17R		KEMP.MET	10	10	1	0	111580040A	02727
18	6308057MSD RI	MSD	AA	1K11160.18R		KEMP.MET	10	10	1	0	111580040A	02727
19	6308058 RI	T	AA	1K11160.19R		KEMP.MET	10	10	1	0	111580040A	02727
20	KEMP31124C	CCAL	EO	1K11160.20R		KEMP.MET	1	1	1	0	1115999999	
21	6308059 RI	T	AA	1K11160.21R		KEMP.MET	10	10	1	0	111580040A	02727
22	6308074 RI	T	AA	1K11160.22R		KEMP.MET	10	10	1	0	111580040A	02727
23	6308075 RI	T	AA	1K11160.23R		KEMP.MET	10	10	1	0	111580040A	02727
24	6308076 RI	T	AA	1K11160.24R		KEMP.MET	10	10	1	0	111580040A	02727
25	6309550	T	AA	1K11160.25R		KEMP.MET	10	10	1	0	111600026A	02727
26	6309553	T	AA	1K11160.26R		KEMP.MET	10	10	1	0	111600026A	02727
27	6309554	T	AA	1K11160.27R		KEMP.MET	10	10	1	0	111600026A	02727
28	6309555	T	AA	1K11160.28R		KEMP.MET	10	10	1	0	111600026A	02727
29	6310720	T	AA	1K11160.29R		KEMP.MET	10	10	1	0	111600026A	02727
30	6310721	T	AA	1K11160.30R		KEMP.MET	10	10	1	0	111600026A	02727
31	KEMP31124C	CCAL	EP	1K11160.31R		KEMP.MET	1	1	1	0	1115999999	
32	6310722	T	AA	1K11160.32R		KEMP.MET	10	10	1	0	111600026A	02727
33	6310723	T	AA	1K11160.33R		KEMP.MET	10	10	1	0	111600026A	02727
34	6310724	T	AA	1K11160.34R		KEMP.MET	10	10	1	0	111600026A	02727
35	KEMP31124C	CCAL	EQ	1K11160.35R		KEMP.MET	1	1	1	0	1115999999	

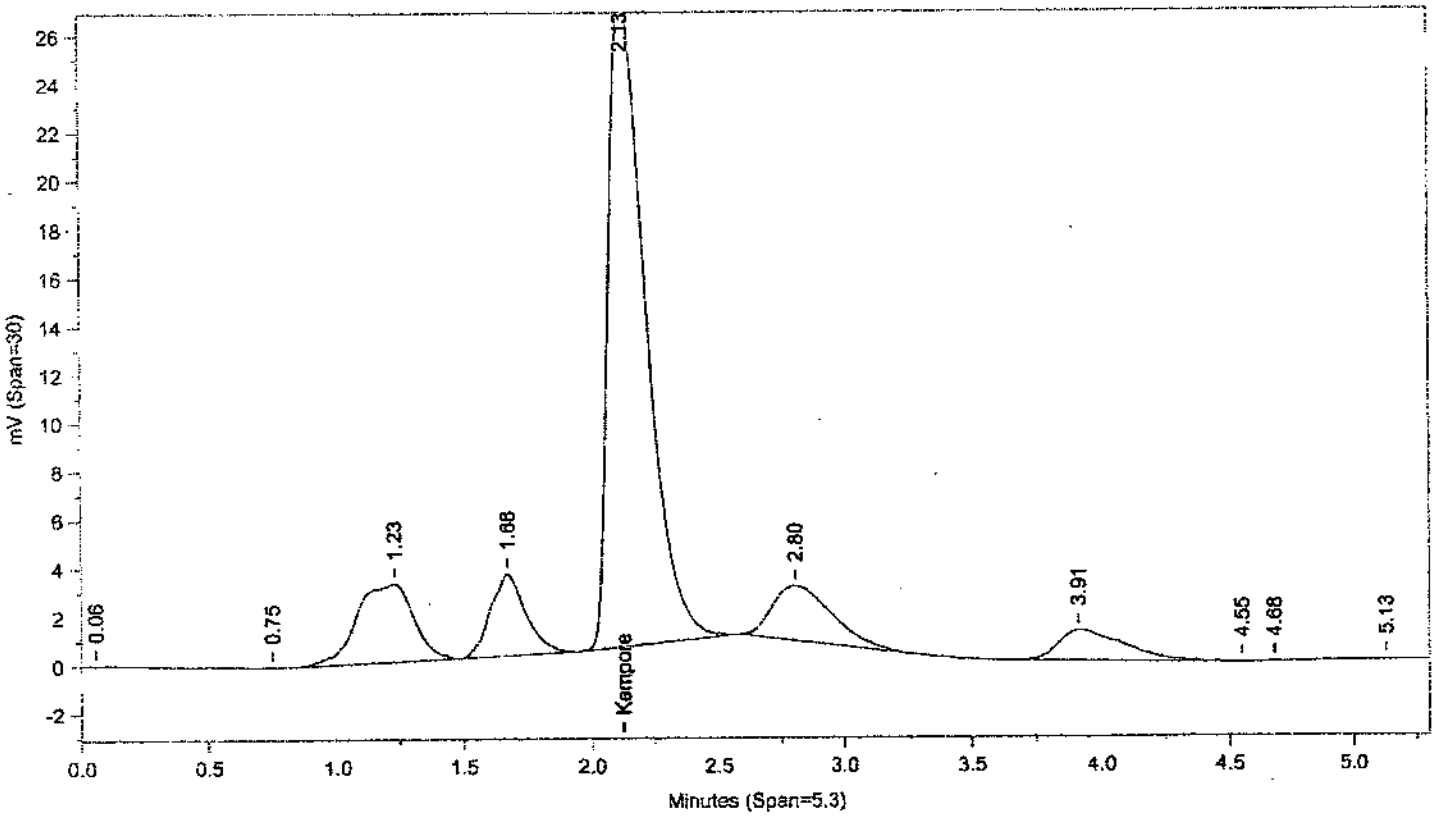
GLN28 3856

Set-up by: [signature] Date: 6/10/11

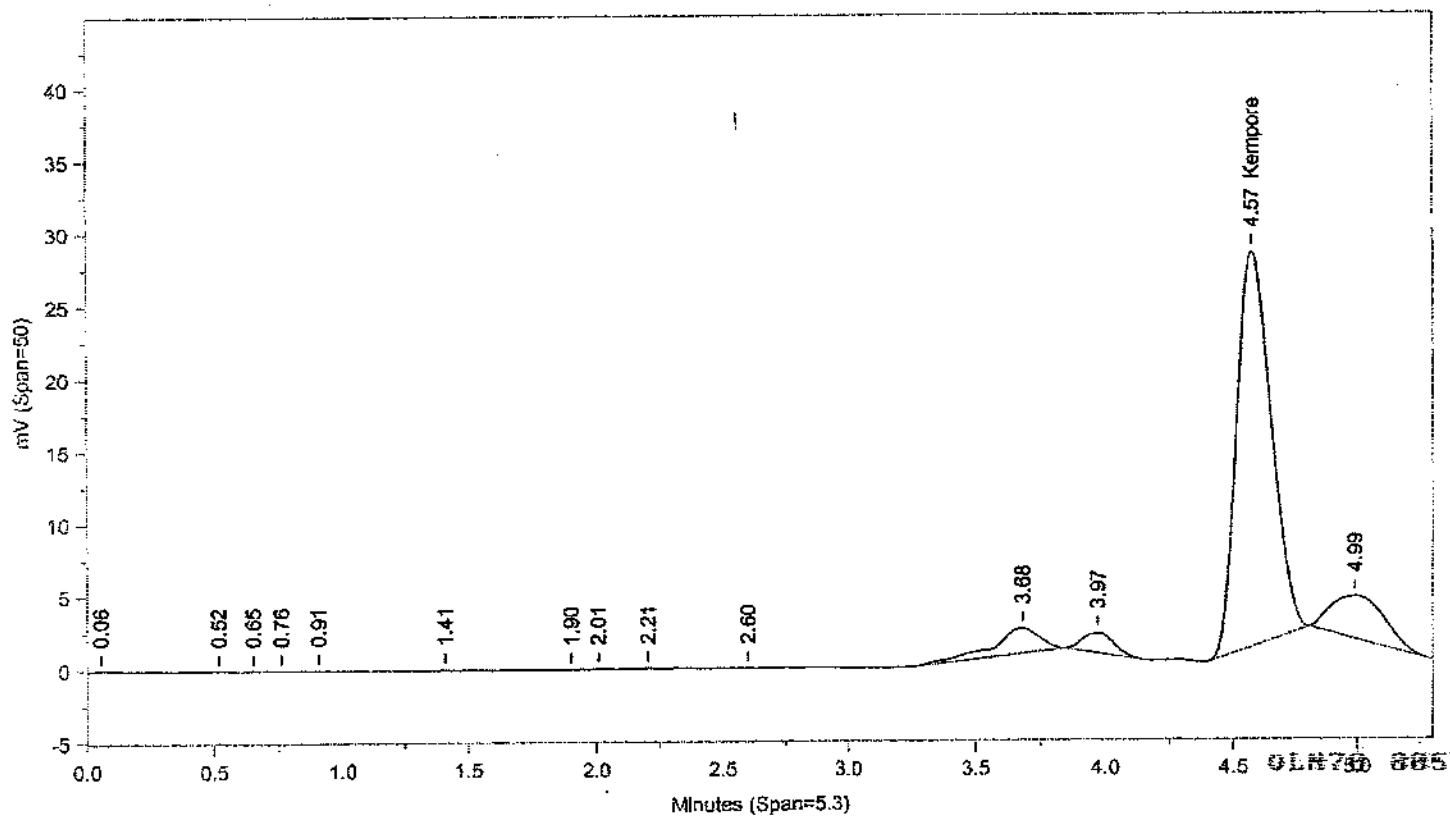
6/9/2011

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1K11160.04R



Instrument ID: CP09–X3593A Injected On: 6/9/2011 7:04:30 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09–X3593B Injected On: 6/9/2011 7:04:30 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

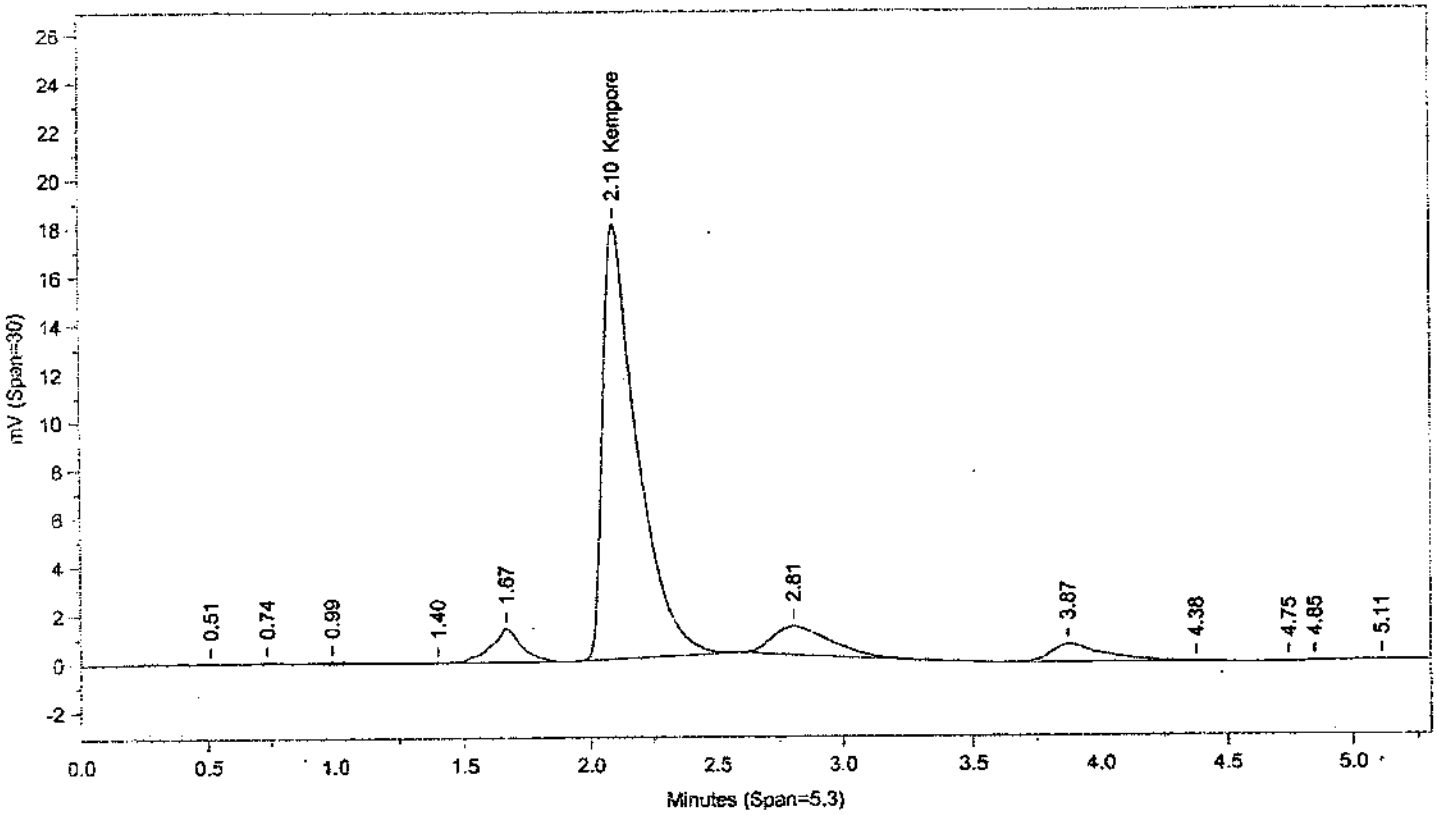
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

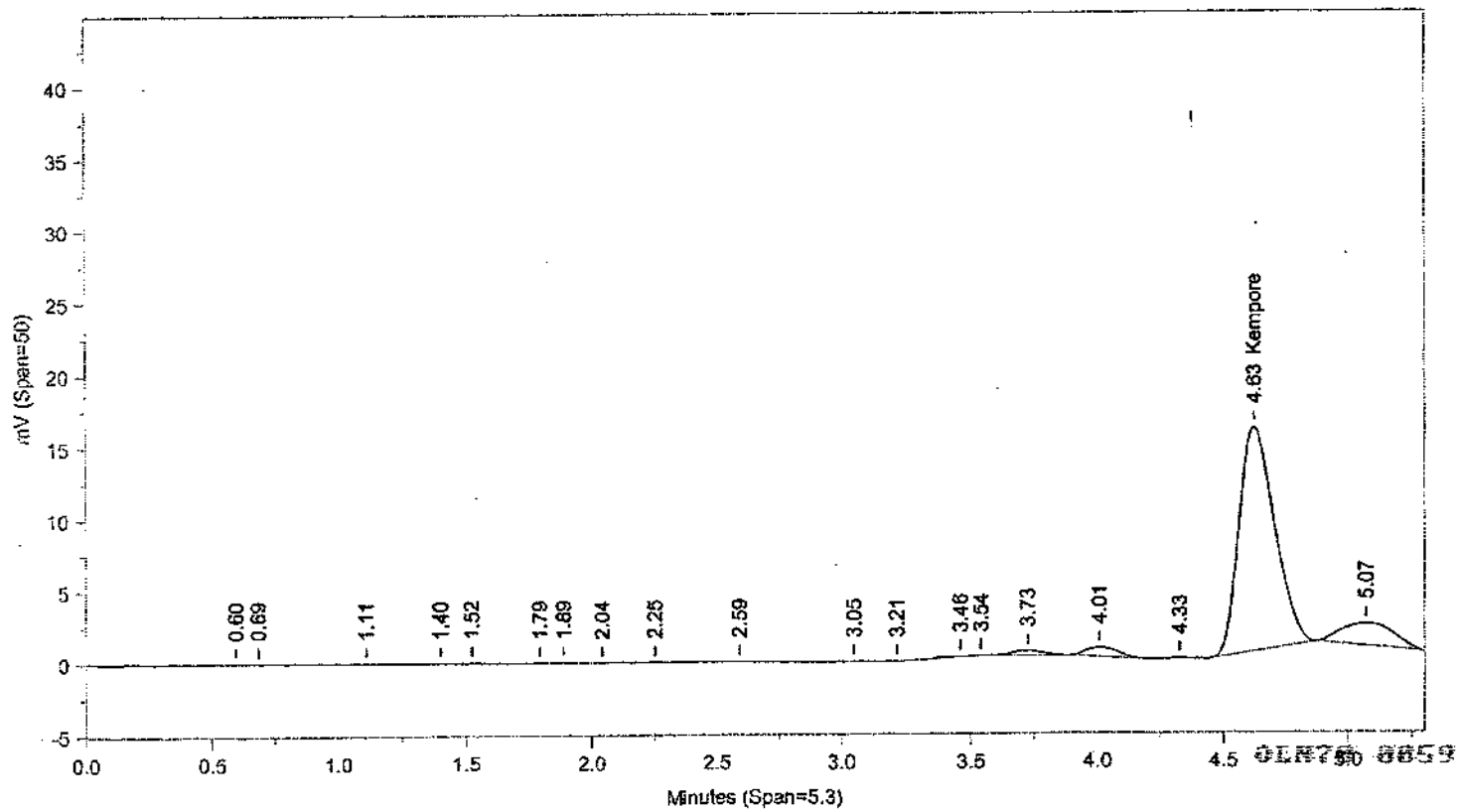
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.127	27003	63905.8	Kempore	4.574	27220	46987.33	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.04A
Area File: C:\CPWIN\DATA1\1K11160B.04A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 7:27:52 PM
File Reported On: 6/9/2011 at 7:28:04 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.05R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:10:42 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:10:42 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

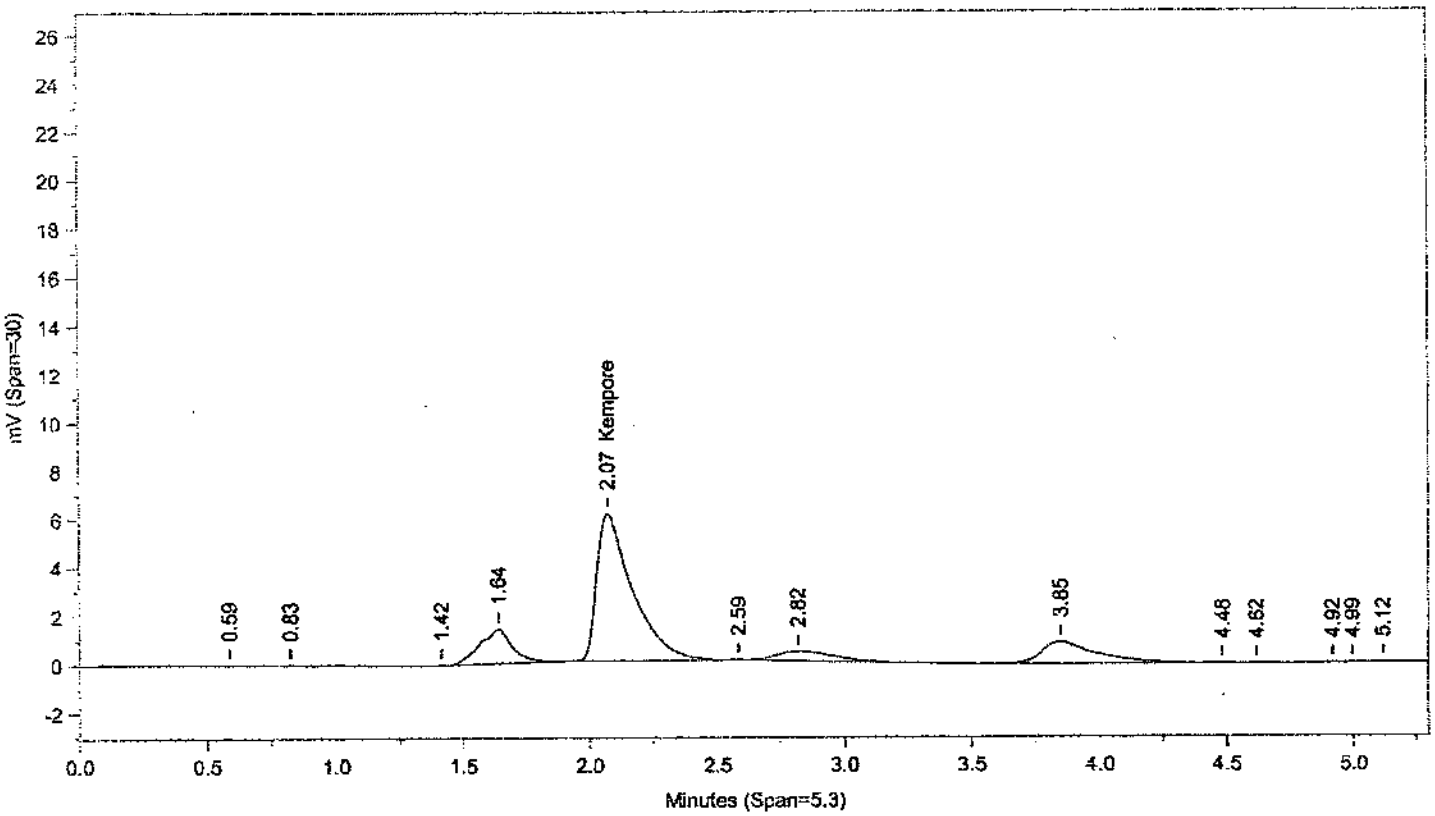
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

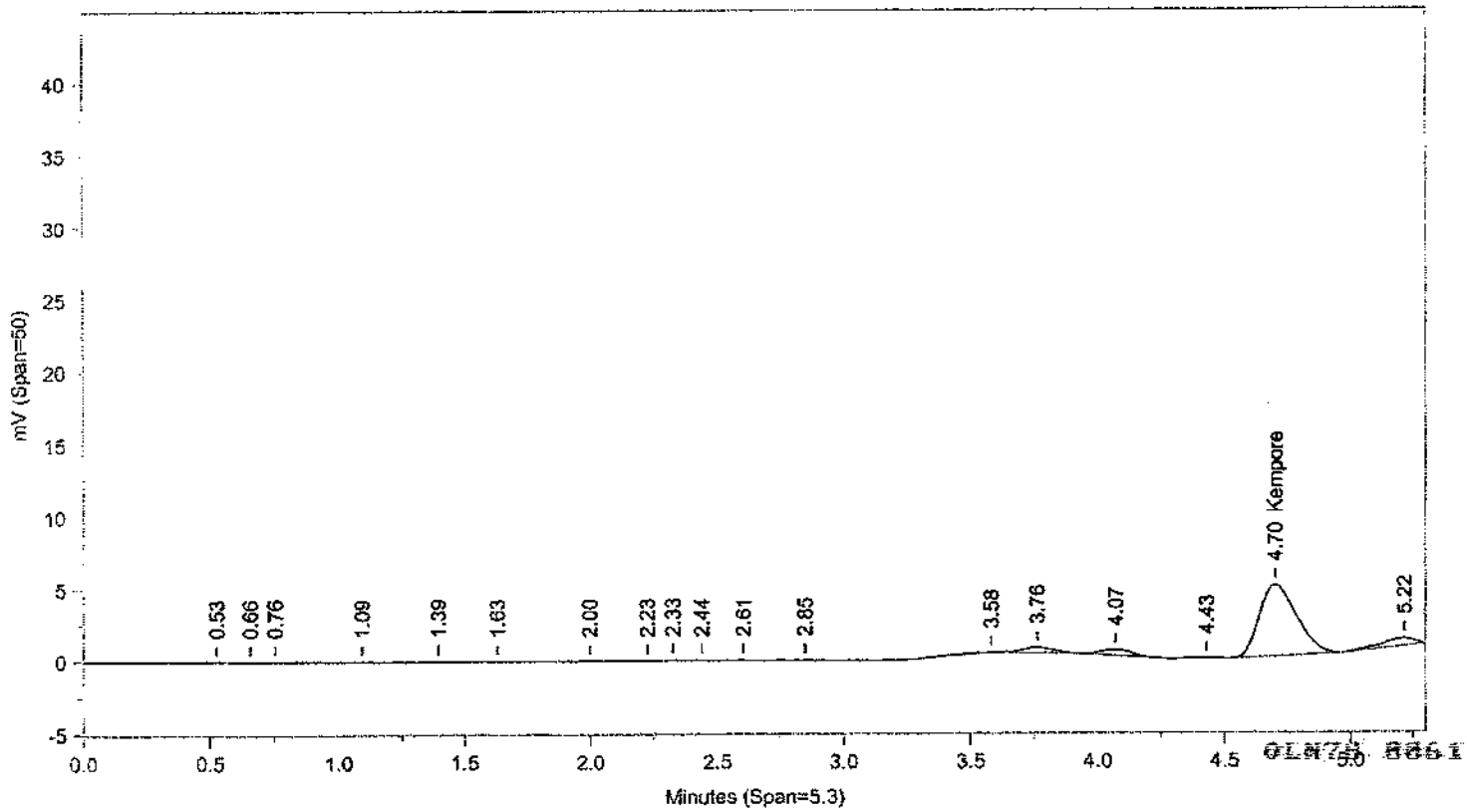
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.097	17960	32644.14	Kempore	4.626	15560	25758.51	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.05A
Area File: C:\CPWIN\DATA1\1K11160B.05A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 7:28:16 PM
File Reported On: 6/9/2011 at 7:28:27 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.06R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:16:55 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:16:55 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

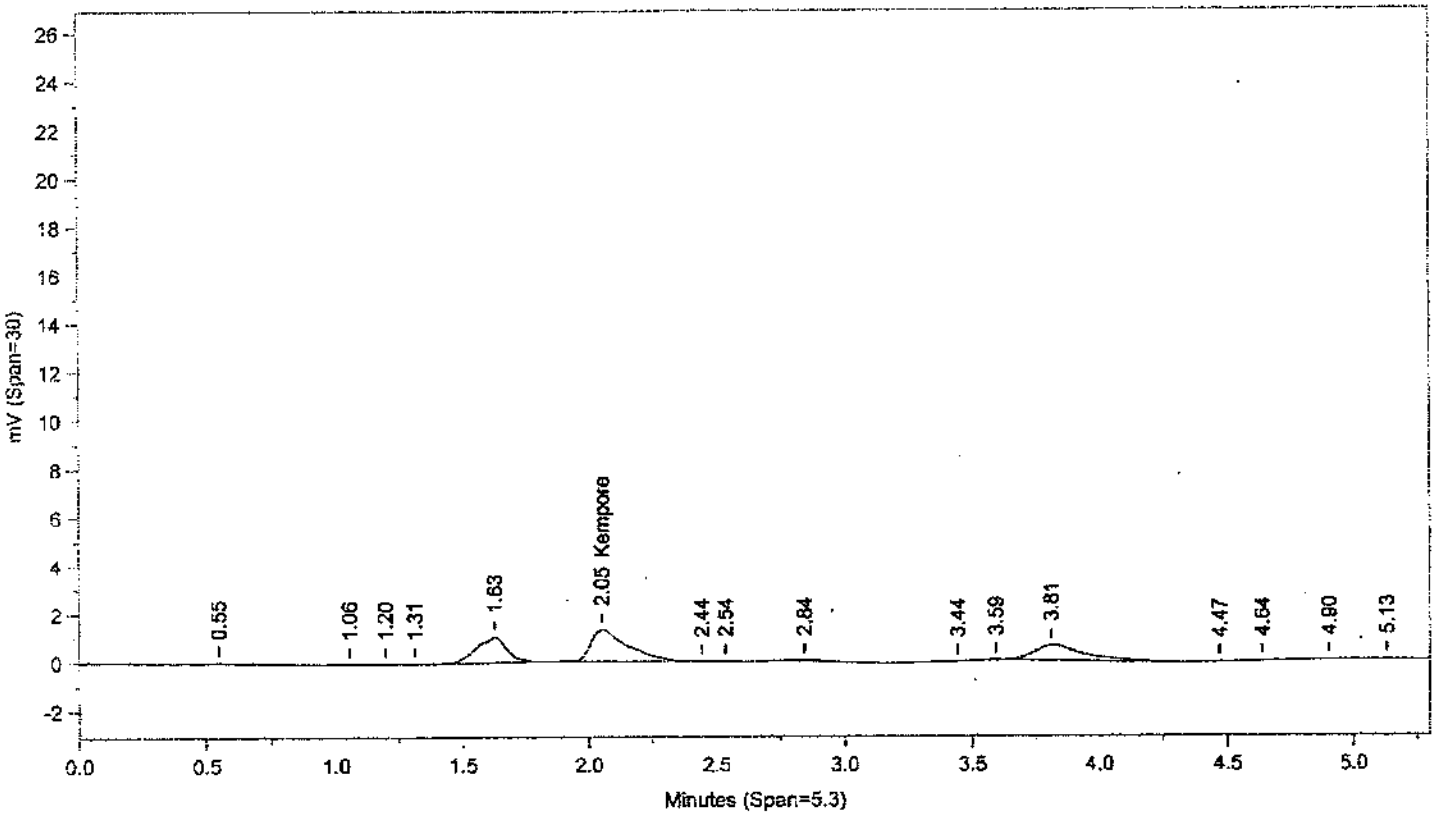
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

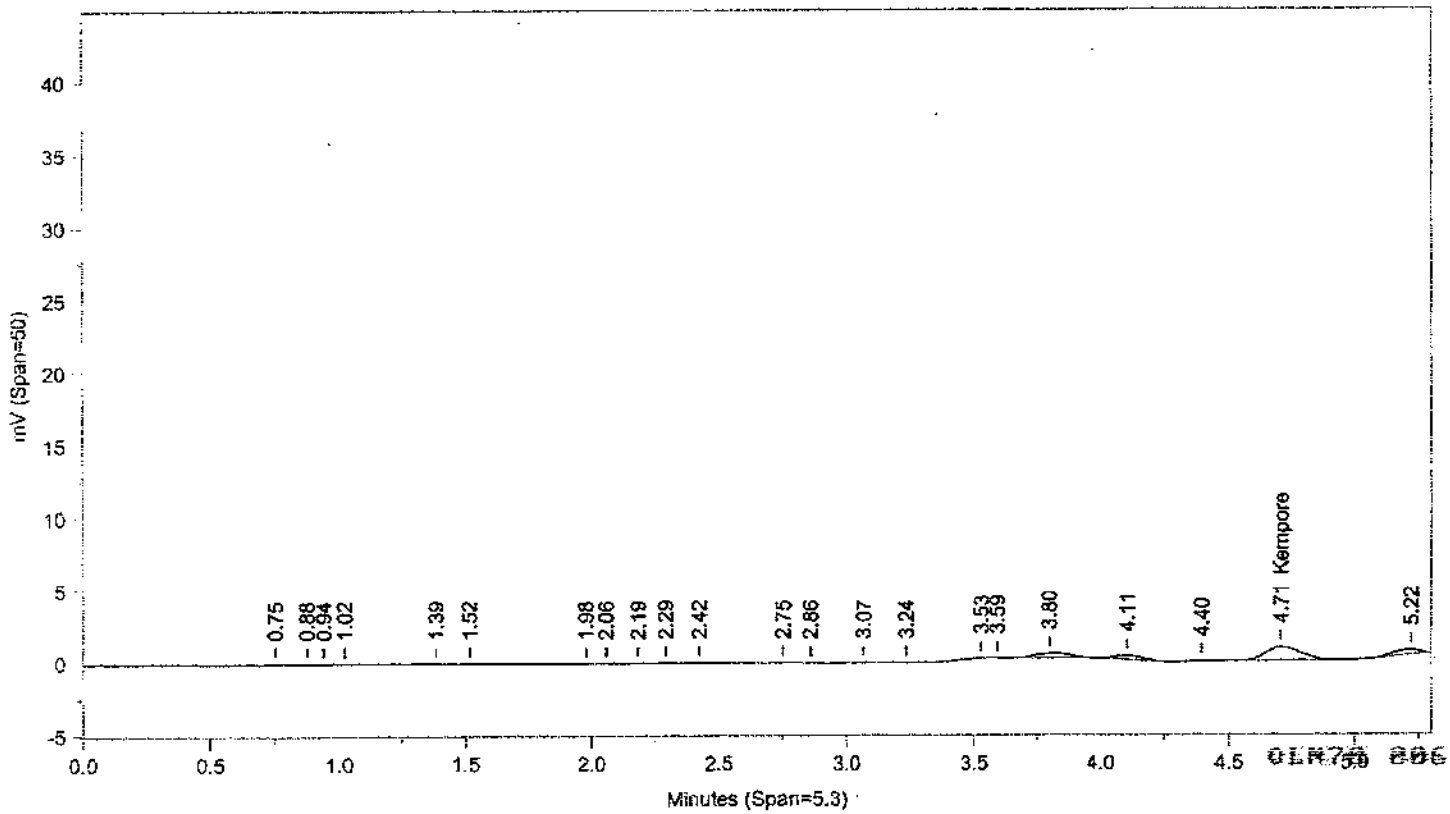
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.075	6082	10045.97	Kempore	4.697	4963	6463.396	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.06A
Area File: C:\CPWIN\DATA1\1K11160B.06A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 7:28:40 PM
File Reported On: 6/9/2011 at 7:28:49 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.07R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:23:07 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:23:07 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

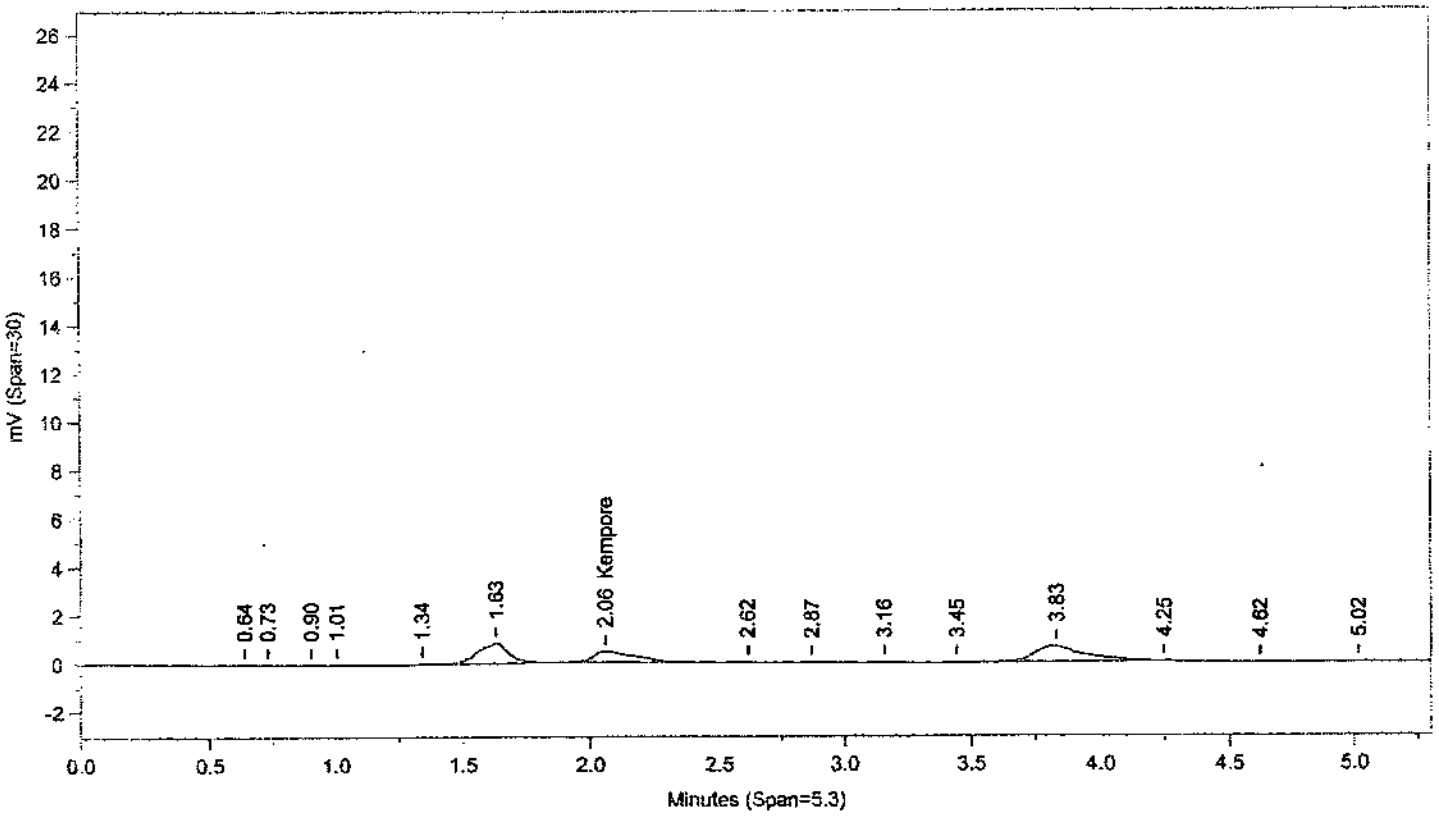
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

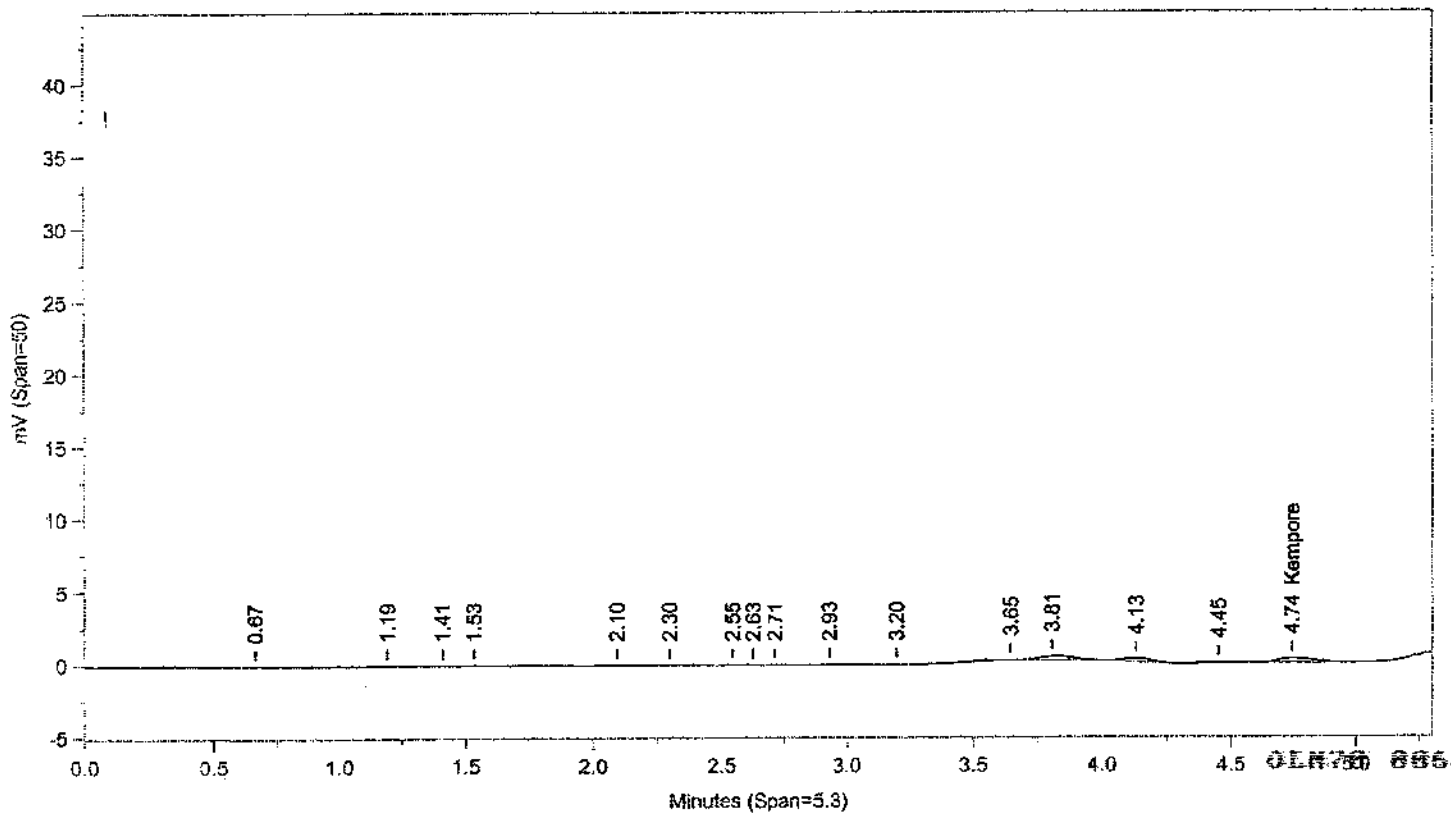
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.054	1317	1447.677	Kempore	4.705	934	-871.494	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.07A
Area File: C:\CPWIN\DATA1\1K11160B.07A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 7:29:02 PM
File Reported On: 6/9/2011 at 7:29:14 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.08R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:29:19 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:29:19 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

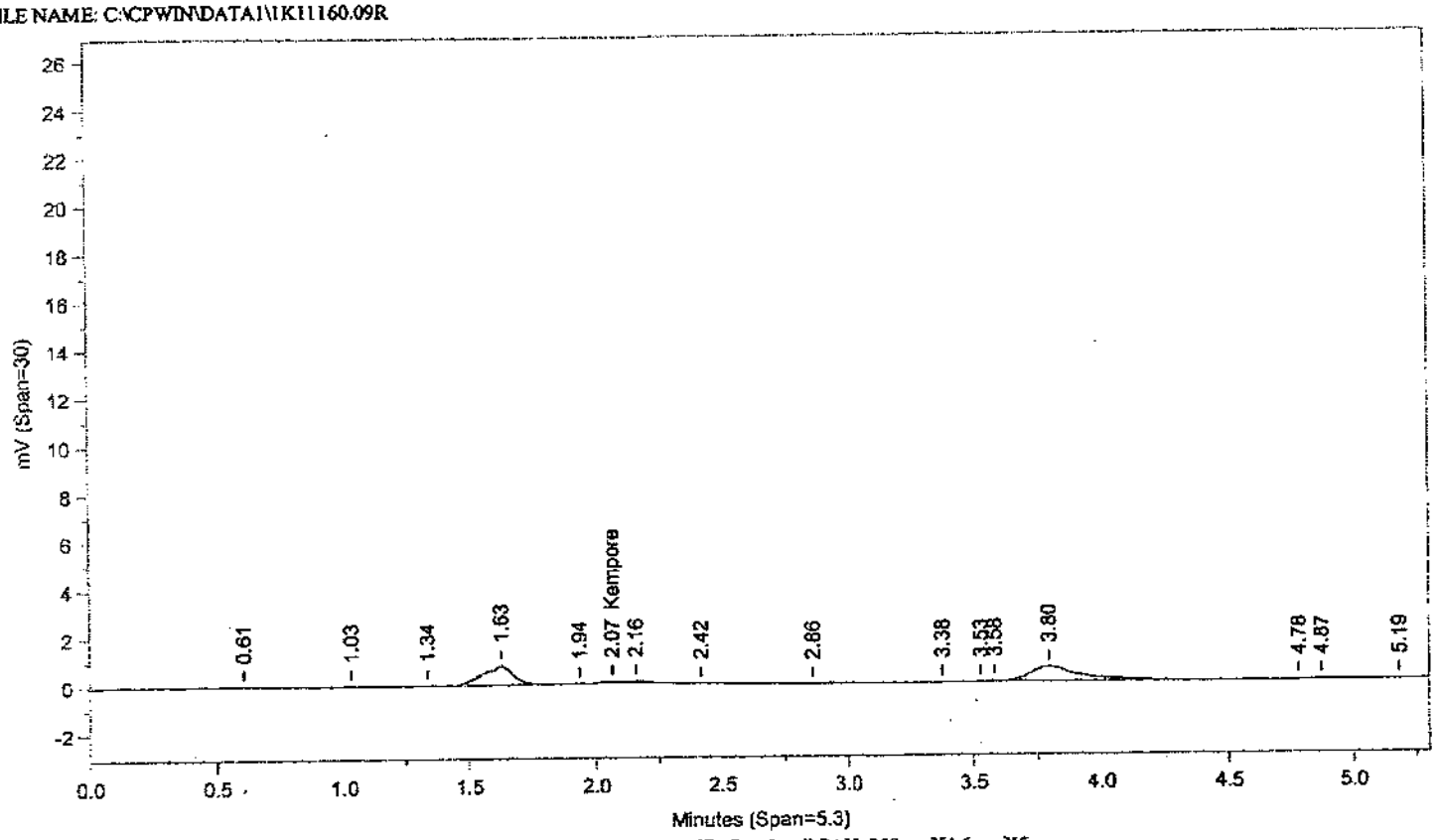
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

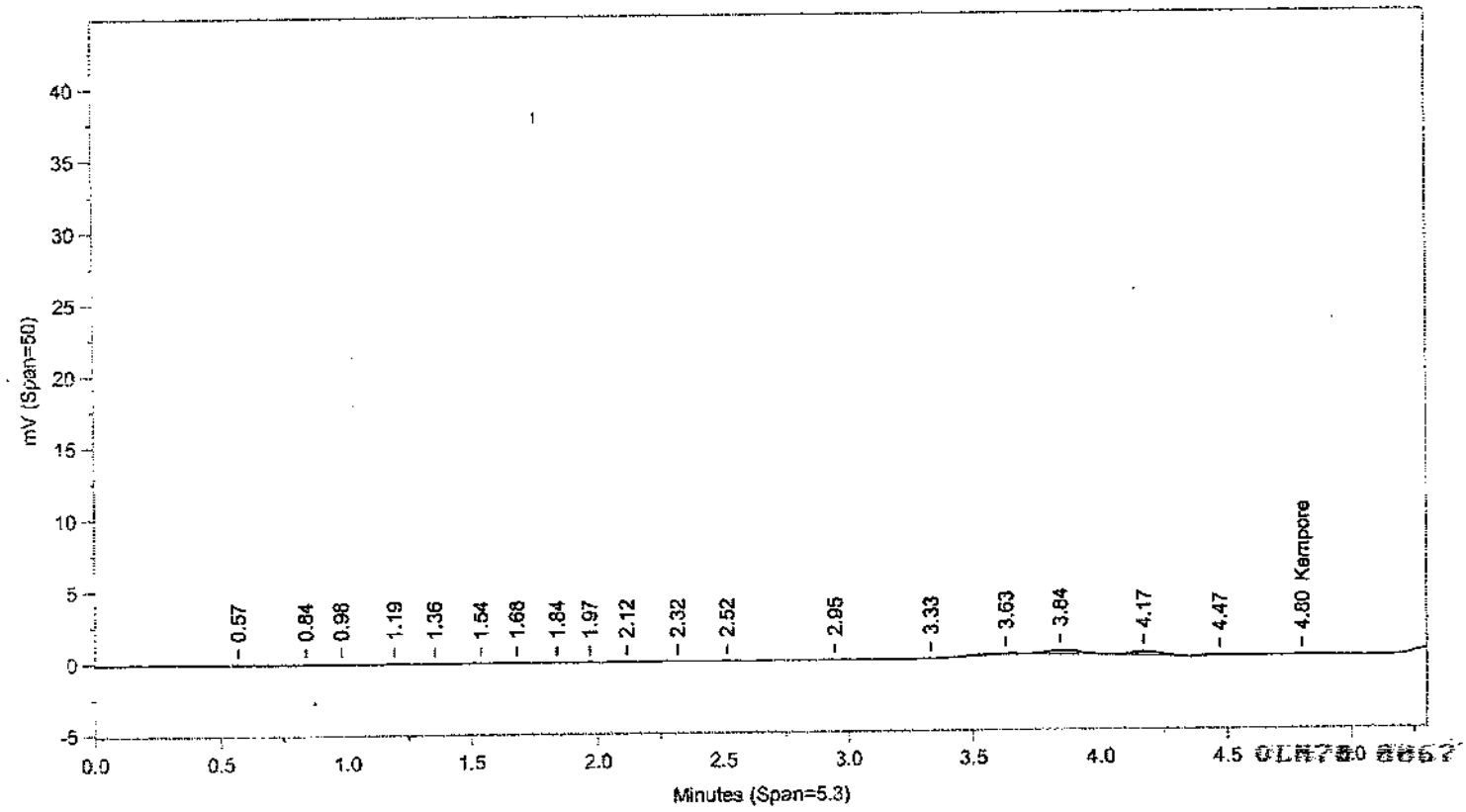
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.06	465	-276.825	Kempore	4.745	333	640.206	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.08A
Area File: C:\CPWIN\DATA1\1K11160B.08A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 7:34:44 PM
File Reported On: 6/9/2011 at 7:34:55 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.09R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:35:31 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:35:31 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

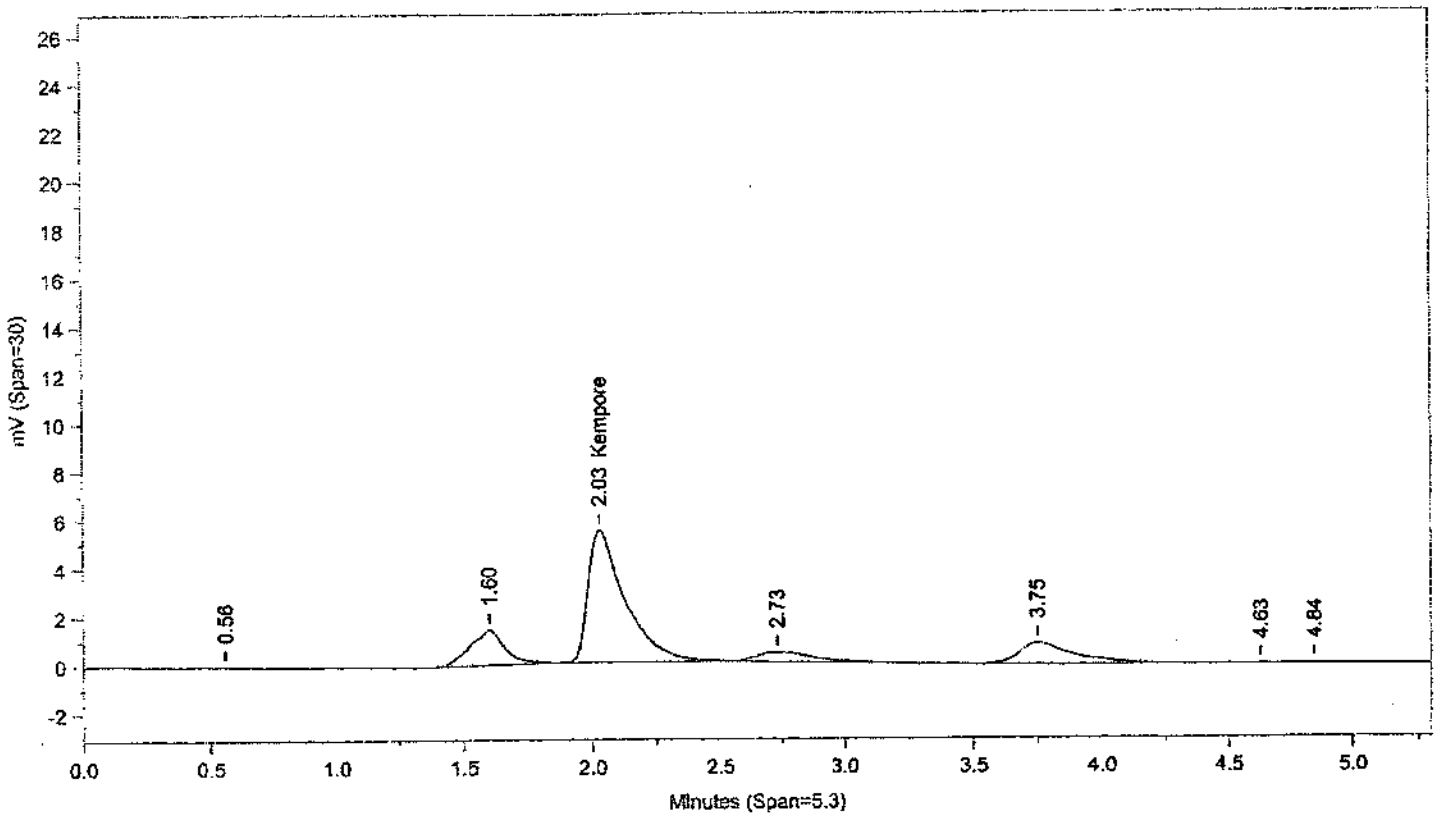
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

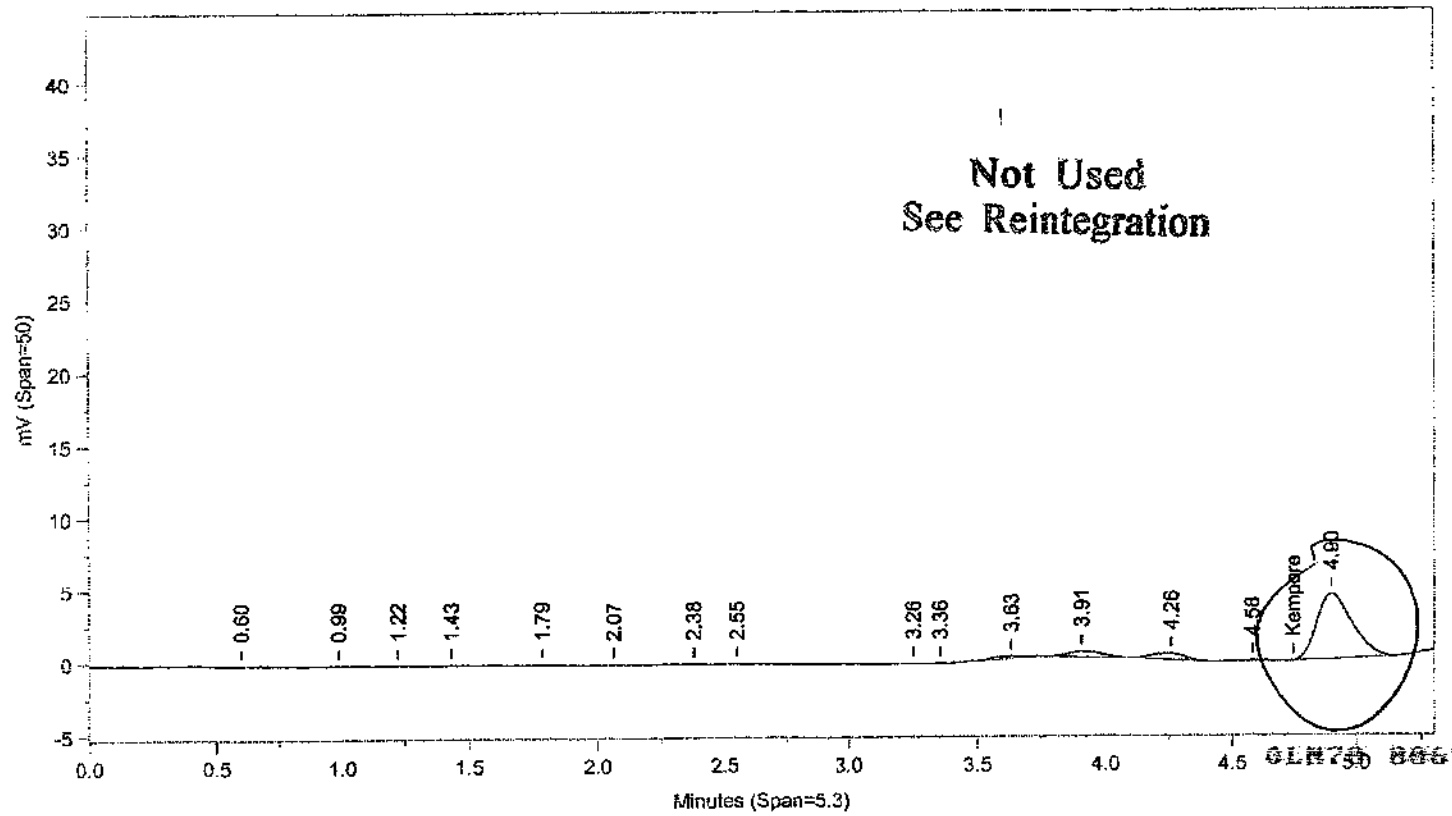
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.067	34	56.509	Kempore	4.799	66	332.655	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.09A
Area File: C:\CPWIN\DATA1\1K11160B.09A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 8:04:18 PM
File Reported On: 6/9/2011 at 8:04:27 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\\K11160.20R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 8:43:50 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 8:43:50 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

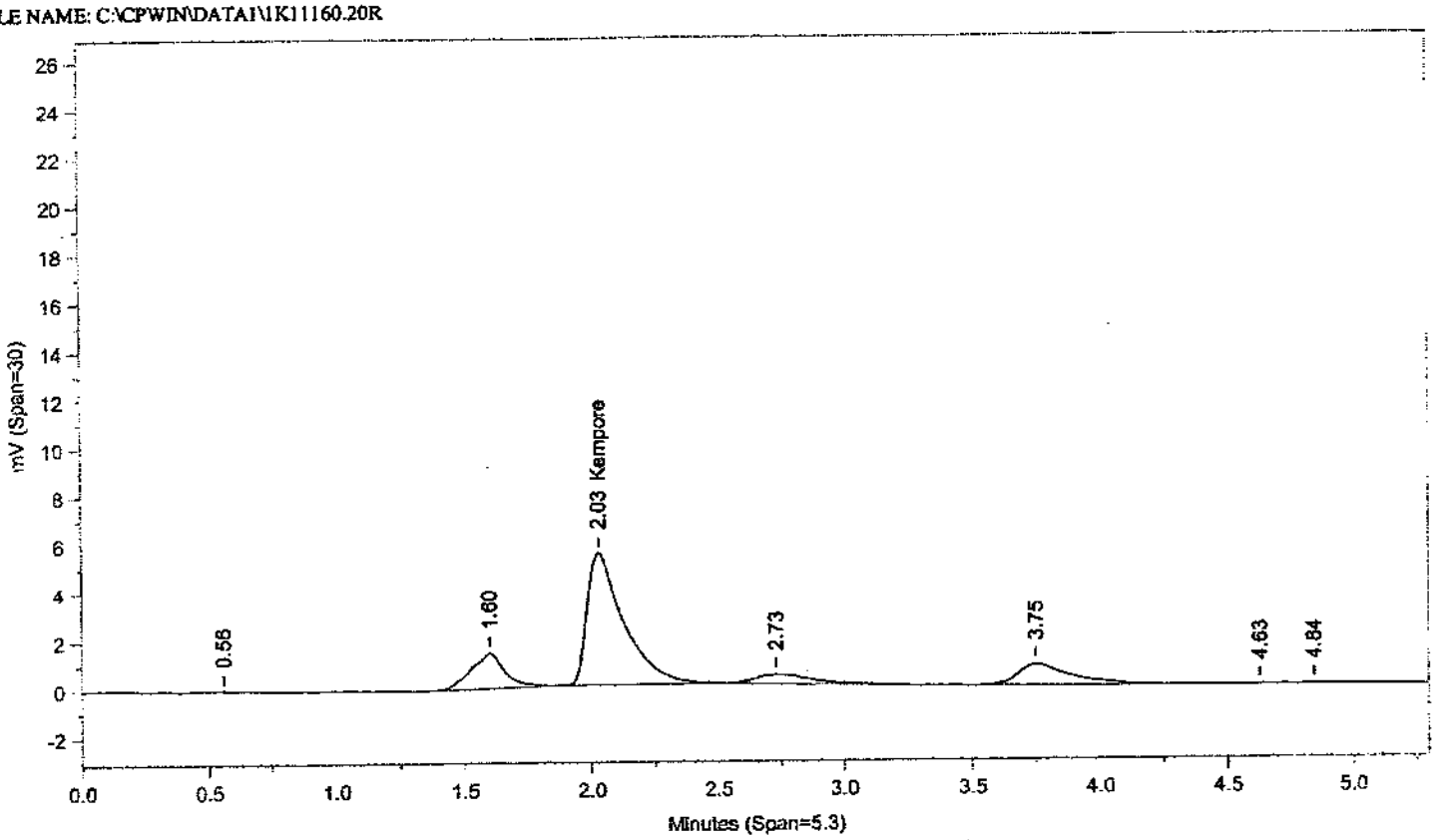
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

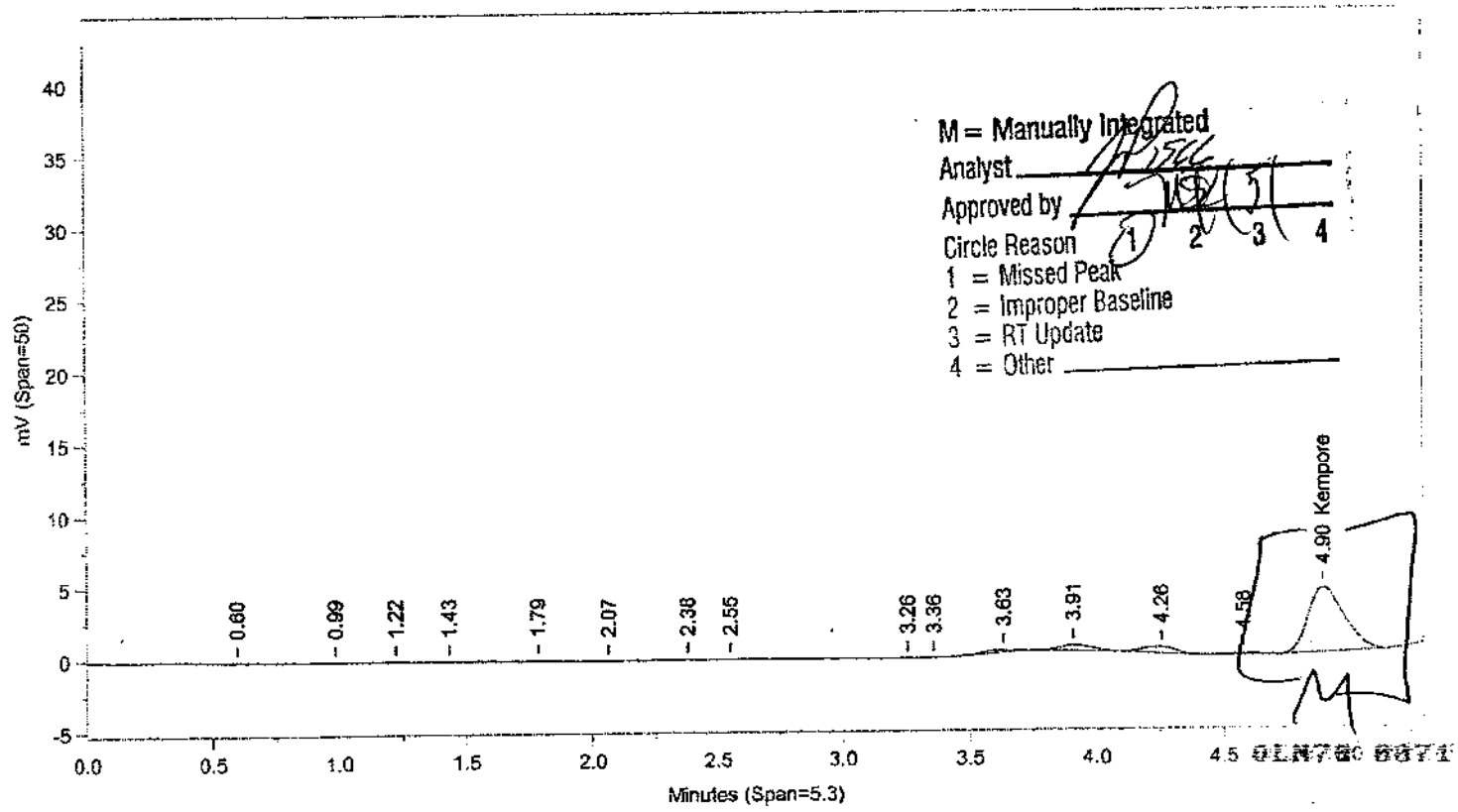
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.031	5458	9074.311	Kempore			0	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.20A
Area File: C:\CPWIN\DATA1\1K11160B.20A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 8:49:16 PM
File Reported On: 6/9/2011 at 8:49:25 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.20R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 8:43:50 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



M = Manually Integrated
Analyst
Approved by
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Instrument ID: CP09--X3593B Injected On: 6/9/2011 8:43:50 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

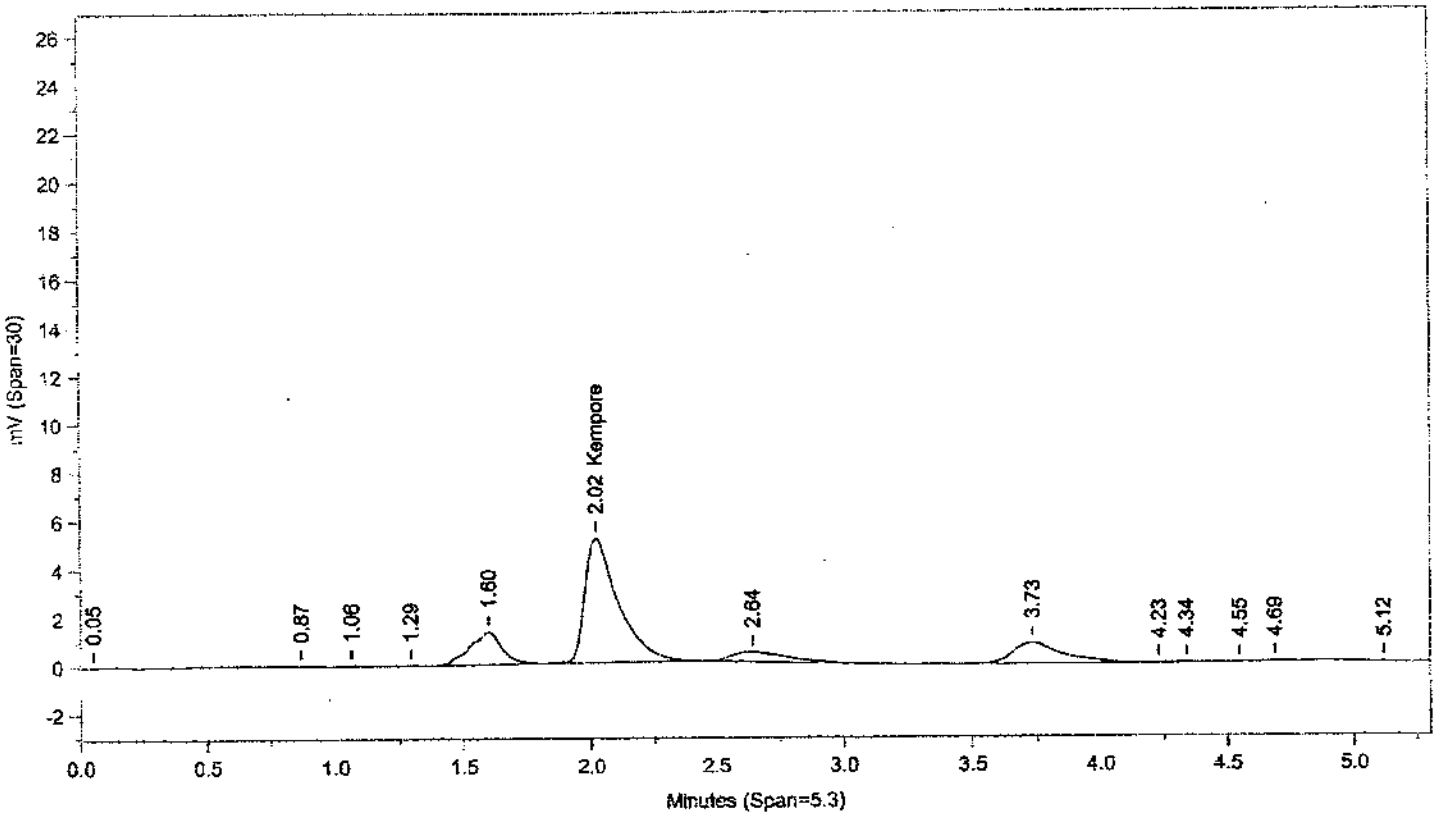
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

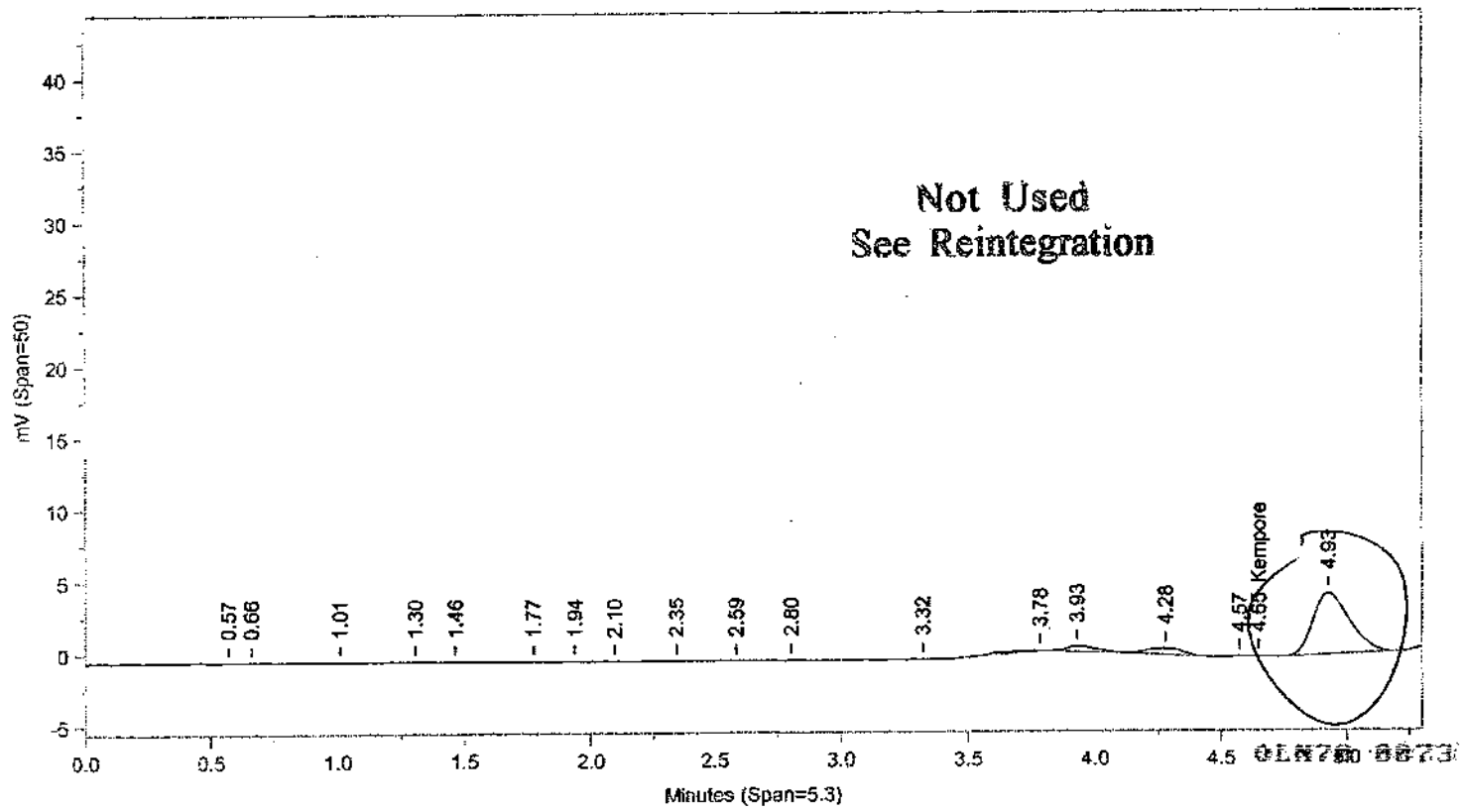
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.031	5458	9074.311	Kempore	4.901	4490	7827.937	Kempore

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11160.CAL
Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/10/2011 4:40:02 PM
File Reported On: 6/10/2011 at 4:40:00 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.31R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:52:15 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 9:52:15 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 1
Analyst: 1566

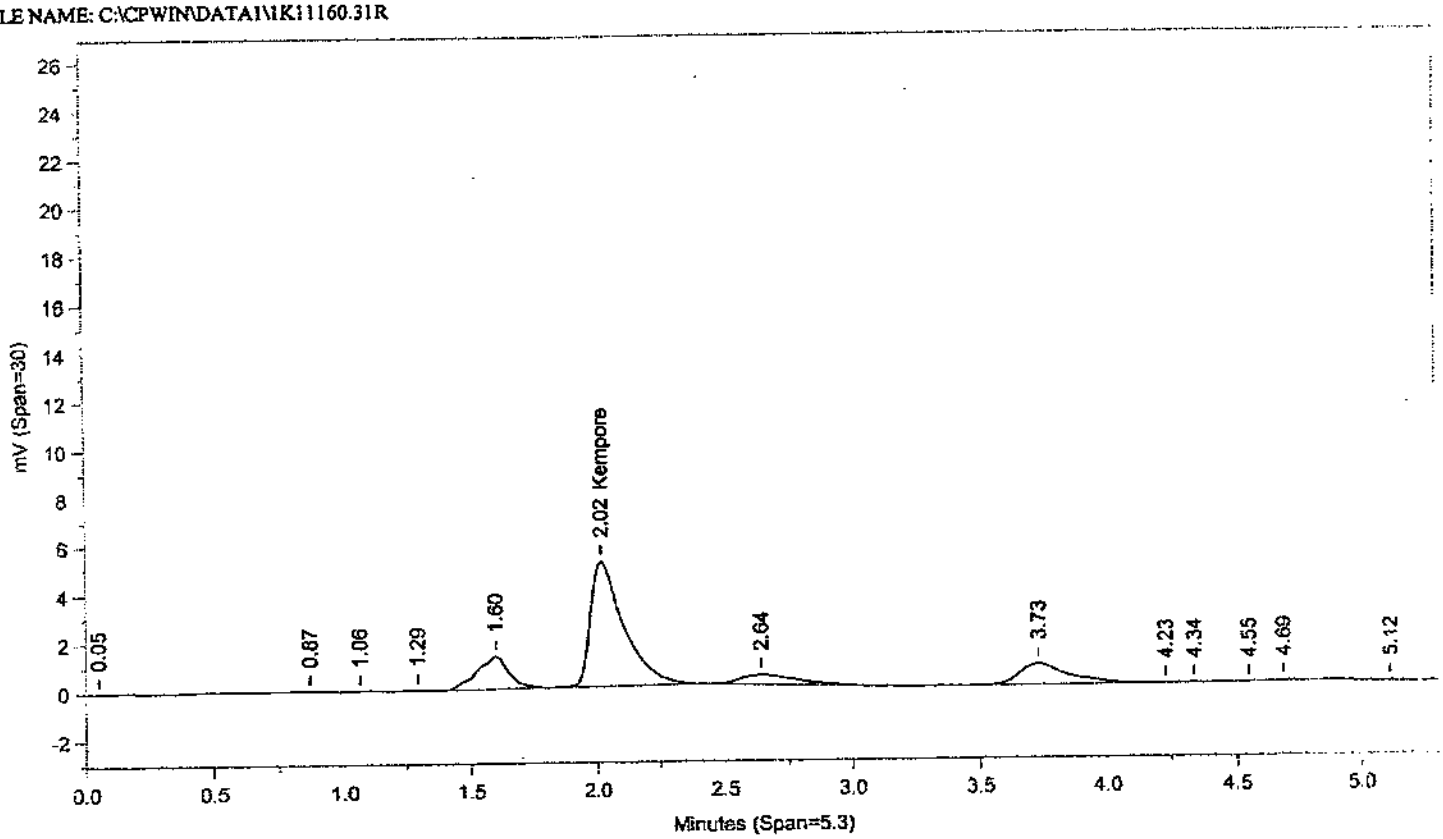
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.021	5150	8562.453	Kempore	4.65	52	309.856	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.31A
Area File: C:\CPWIN\DATA1\1K11160B.31A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 9:57:40 PM
File Reported On: 6/9/2011 at 9:57:48 PM

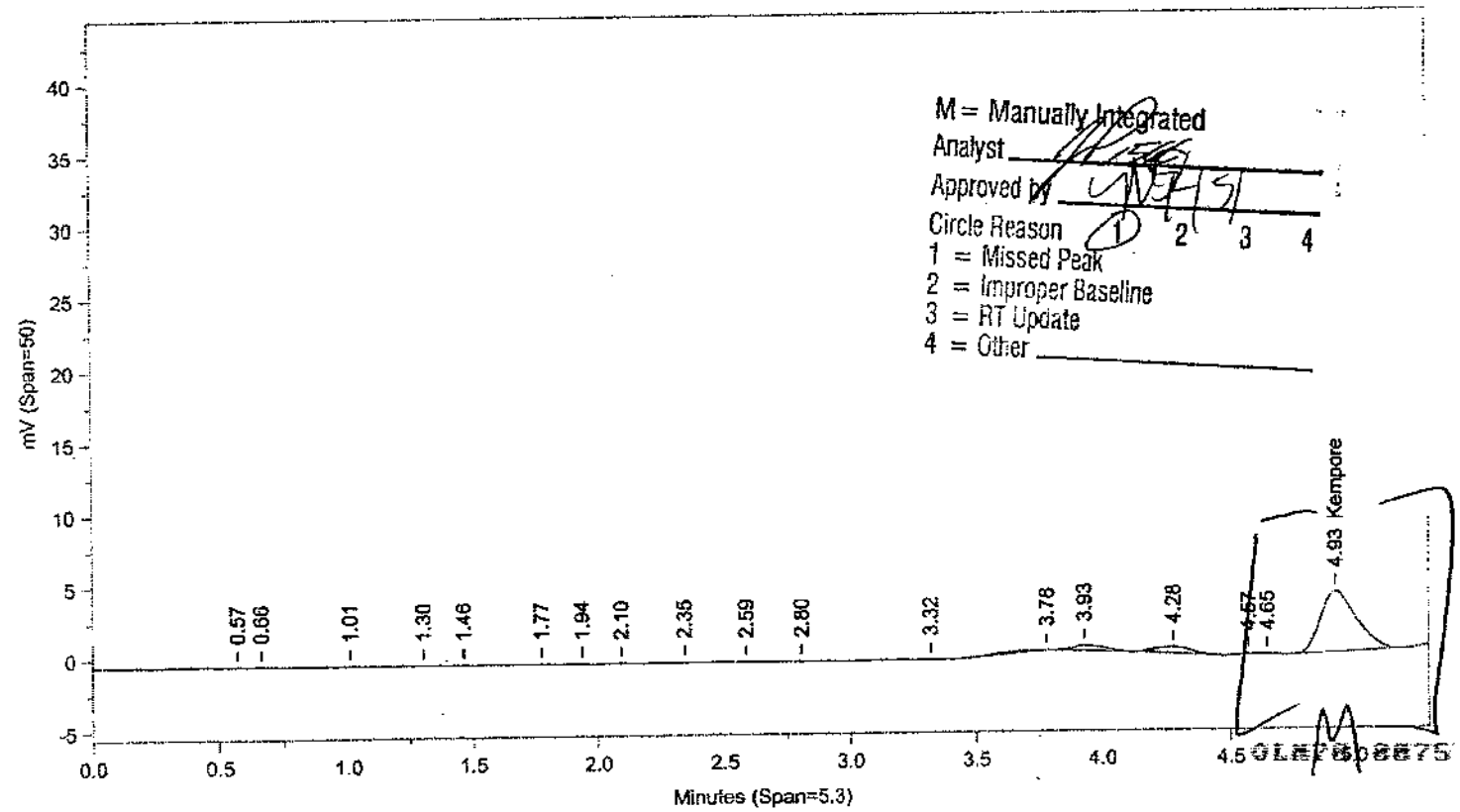
Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.31R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 9:52:15 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um

M = Manually Integrated
Analyst
Approved by
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other



Instrument ID: CP09--X3593B Injected On: 6/9/2011 9:52:15 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.021	5150	8562.453	Kempore	4.928	4227	7381.069	Kempore

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11160.CAL
Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/10/2011 4:42:00 PM
File Reported On: 6/10/2011 at 4:41:59 PM

Raw QC Data

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PBLK40158

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** BLANKA

Sample wt/vol: 10 **(g/ml)** ml **Lab File ID:** 1K11160.10R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 **(uL)** **Date Analyzed:** 6/9/2011

Injection Volume: 35 **(uL)** **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	230	U

Lancaster Laboratories-Single Component Data Summary

Sample Name: BLANKA 6/7/11 RI PBLK40158 Sample ID: AA **Batchnumber: 111580040A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02727 10342

Analysis Report (A)

Injected on	: JUN 09, 2011 19:41:44
Instrument	: CP09--X3593A
Result file	: 1K11160.10R
Calibration file	: 1K11160.CAL
Method file	: KEMP.MET

Analysis Report (B)

Injected on	: JUN 09, 2011 19:41:44
Instrument	: CP09--X3593B
Result file	: 1K11160B.10R
Calibration file	: 1K11160B.CAL
Method file	: KEMPB.MET

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.12	2.21	108	180.264862

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore			<1000	<230			

Units: ug/l

Reviewed by: [signature] Date: 6/16/11

Verified by: [signature] JUN 17 2011 Date:

Valerie Tomayko
Senior Specialist

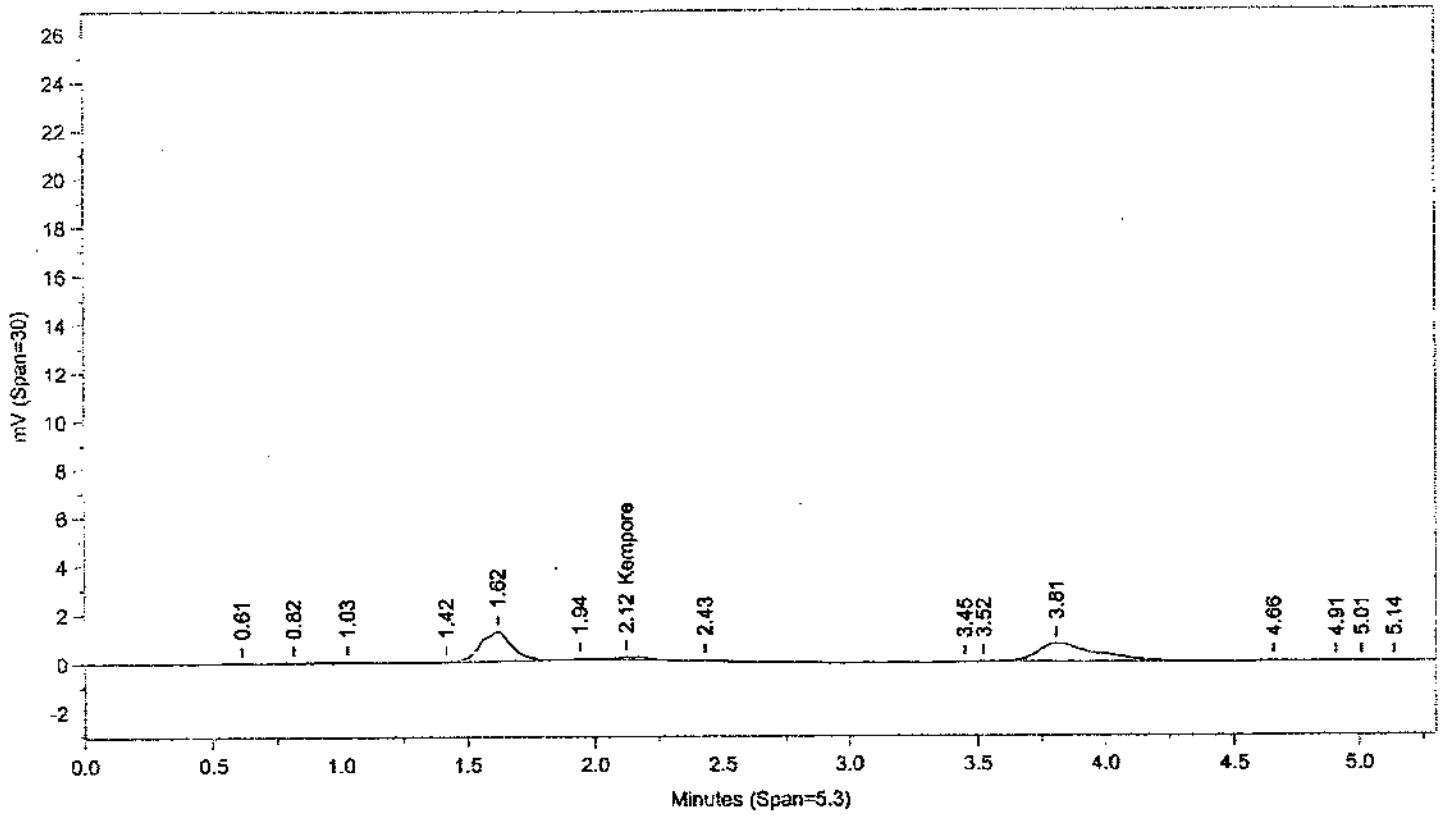
OLN70 8879

%Difference = High - Low Amount divided by the Average times 100

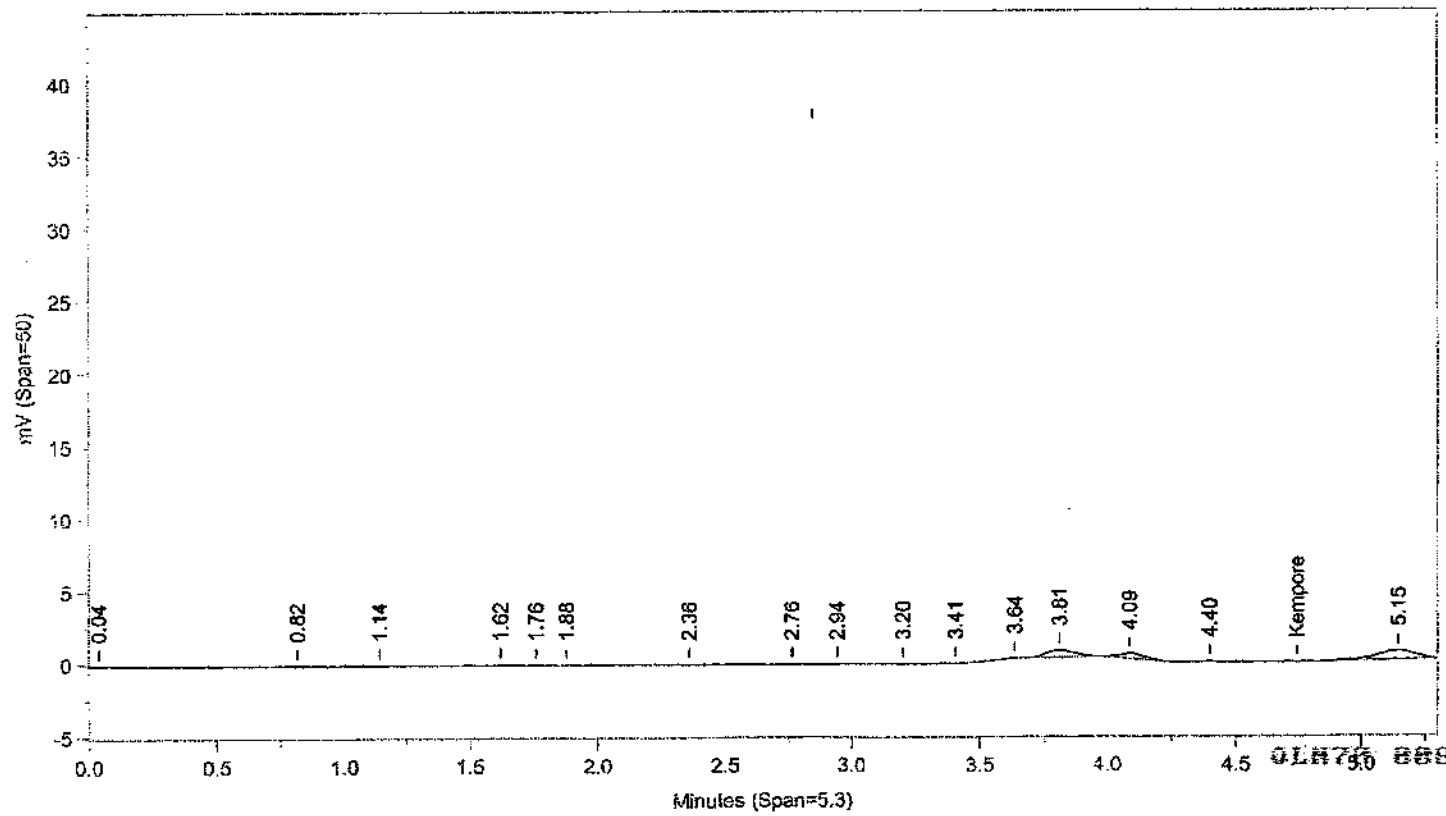
* Recovery outside QC Limits

Printed on: 6/10/11 16:49:02

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.10R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:41:43 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:41:43 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.123	108	180.265	Kempore			0	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.10A
Area File: C:\CPWIN\DATA1\1K11160B.10A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 8:04:38 PM
File Reported On: 6/9/2011 at 8:04:47 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. LCS40158

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** LCSA

Sample wt/vol: 10 **(g/ml)** ml **Lab File ID:** 1K11160.11R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 **(uL)** **Date Analyzed:** 6/9/2011

Injection Volume: 35 **(uL)** **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	8000	P

Lancaster Laboratories-Single Component Data Summary

Sample Name: LCSA 6/7/11 RI LCS40158 Sample ID: AA **Batchnumber:** 111580040A
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02727 10342

Analysis Report (A)

Injected on : JUN 09, 2011 19:47:57
Instrument : CP09--X3593A
Result file : 1K11160.11R
Calibration file : 1K11160.CAL
Method file : KEMP.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.13	2.21	4798	7977.625977

Analysis Report (B)

Injected on : JUN 09, 2011 19:47:57
Instrument : CP09--X3593B
Result file : 1K11160B.11R
Calibration file : 1K11160B.CAL
Method file : KEMPB.MET
%SSR(Kempore) :

Peak name	Min	R.T.	Max	Height	Amount
Kempore	4.60	4.56	4.90	4685	8157.018066

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	(A)	7978	<1000	<230			

Units: ug/l

Reviewed by: _____
Date: 6/16/11

Verified by: _____
Date: JUN 17 2011

Valerie Tomayko
Senior Specialist

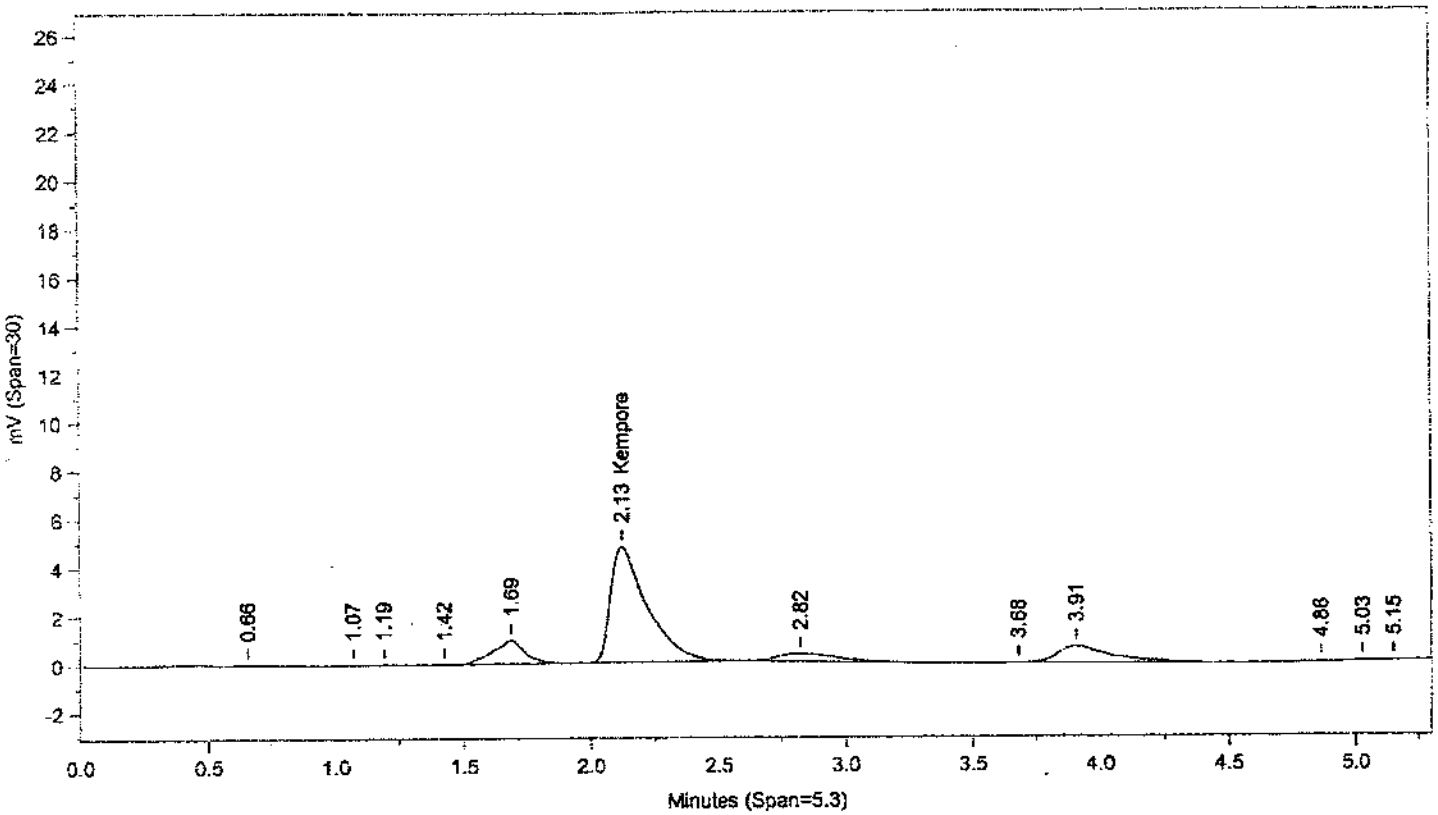
01N78 2003

%Difference = High - Low Amount divided by the Average times 100

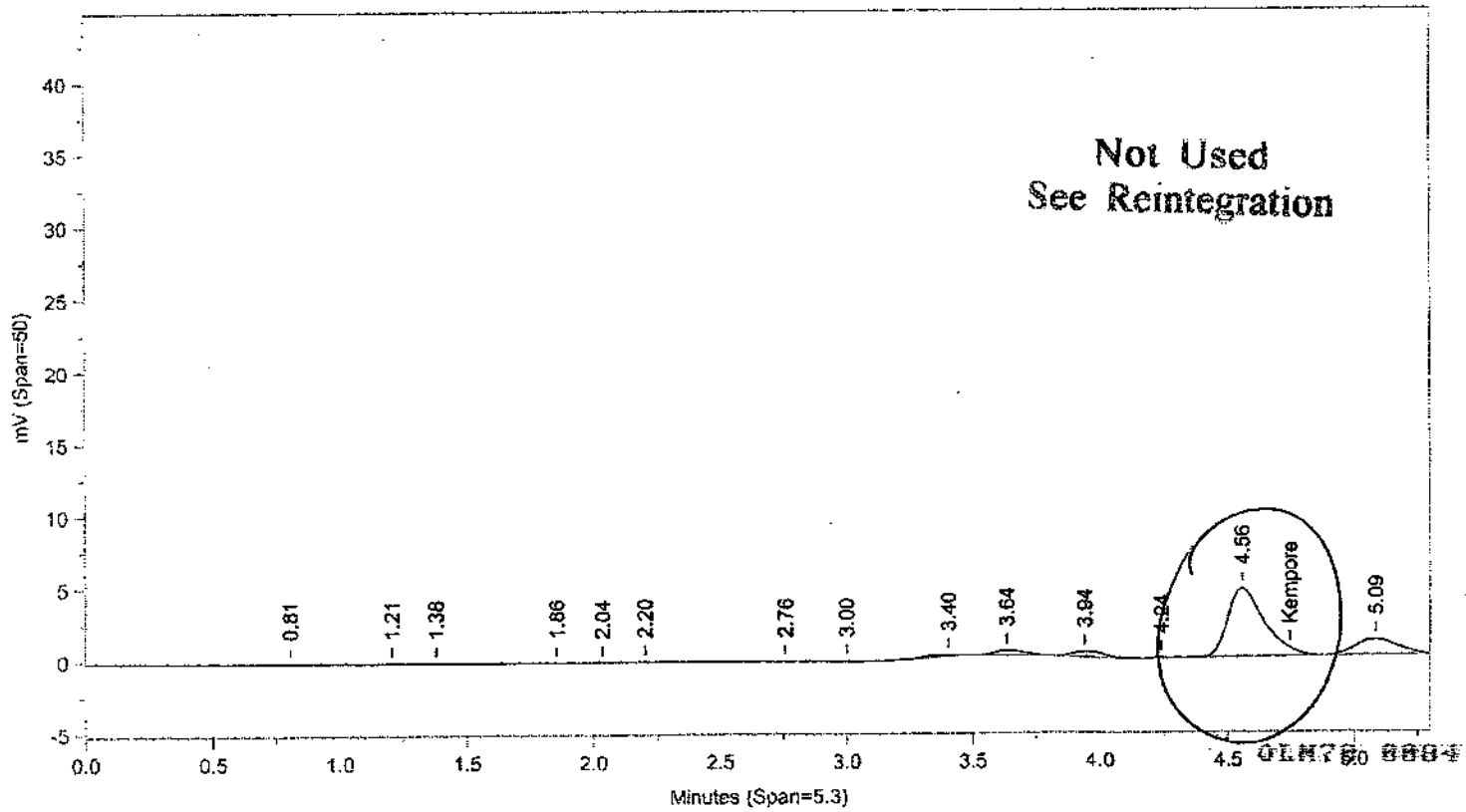
* Recovery outside QC Limits

Printed on: 6/10/11 16:49:21

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1K11160.11R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:47:56 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:47:56 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

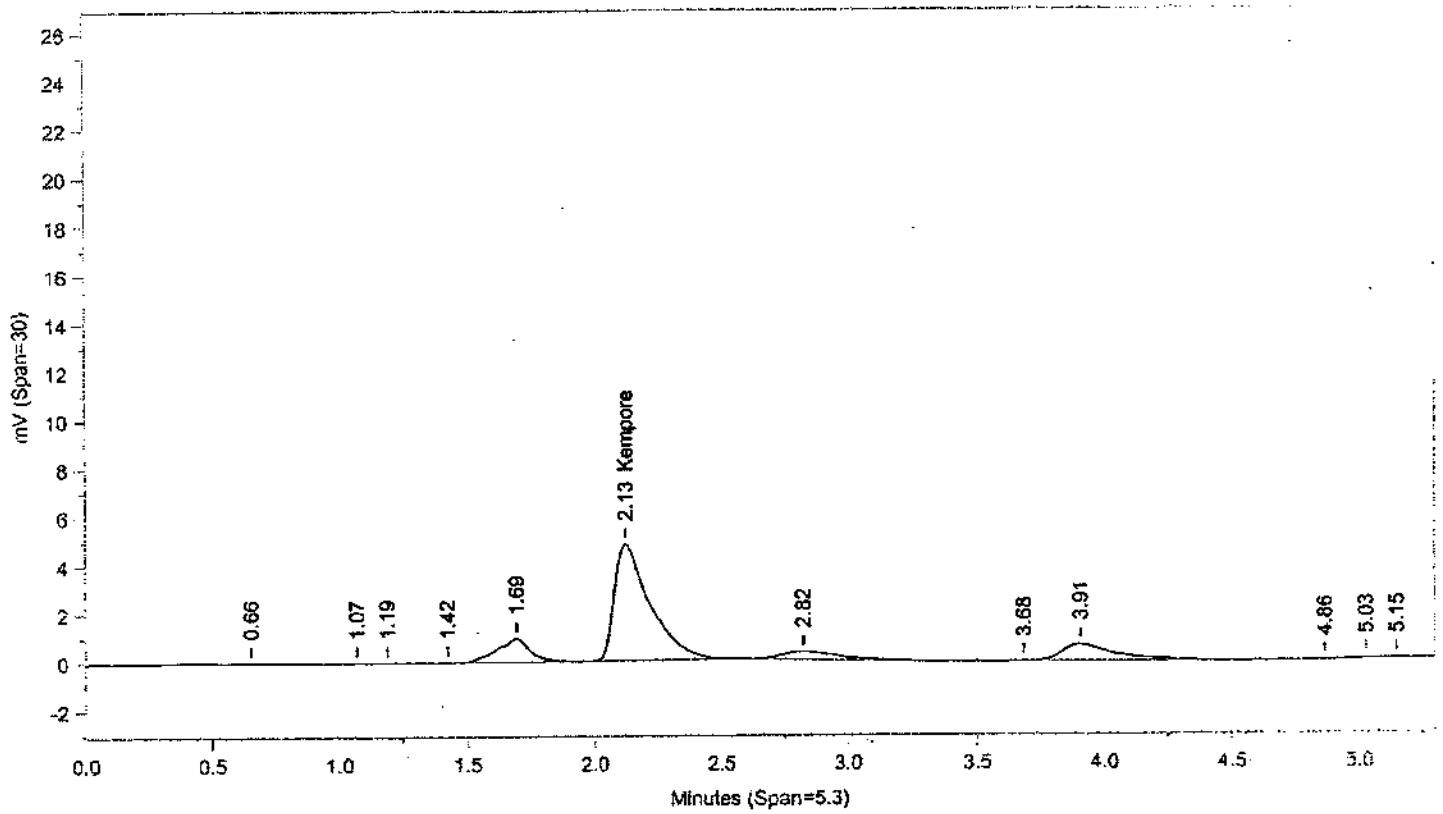
Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.126	4798	7977.626	Kempore	.	0	.	Kempore

Files:
Area File: C:\CPWIN\DATA1\1K11160.11A
Area File: C:\CPWIN\DATA1\1K11160B.11A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\1K11160.CAL
Calibration File B: C:\CPWIN\DATA1\1K11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 8:04:58 PM
File Reported On: 6/9/2011 at 8:05:07 PM

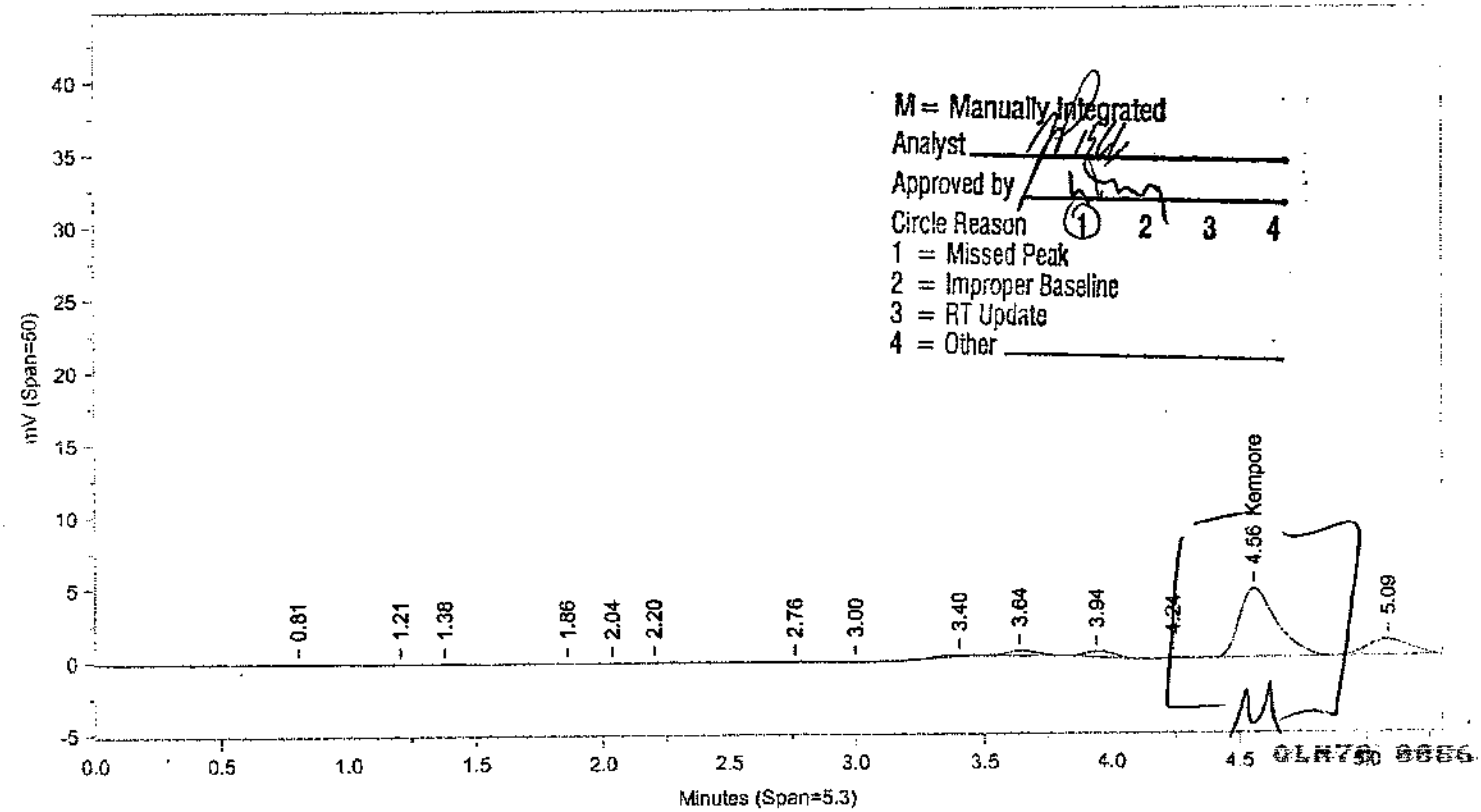
Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\IK11160.11R



Instrument ID: CP09–X3593A Injected On: 6/9/2011 7:47:56 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um

M = Manually Integrated
Analyst
Approved by
Circle Reason (1) 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other



Instrument ID: CP09–X3593B Injected On: 6/9/2011 7:47:56 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.126	4798	7977.626	Kempore	4.558	4685	8157.018	Kempore

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11160.CAL
Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/10/2011 4:18:28 PM
File Reported On: 6/10/2011 at 4:18:27 PM

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. LCSD40158

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111580040A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** LCSDA

Sample wt/vol: 10 **(g/ml)** ml **Lab File ID:** 1K11160.12R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/7/2011

Concentrated Extract Volume: 10000 **(uL)** **Date Analyzed:** 6/9/2011

Injection Volume: 35 **(uL)** **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
123-77-3	Kempore	8300	P

Lancaster Laboratories-Single Component Data Summary

Sample Name: **LCSDA** 6/7/11 RI LCSD40158 Sample ID: AA **Batchnumber: 111580040A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02727 10342

Analysis Report (A)

Injected on	: JUN 09, 2011 19:54:10
Instrument	: CP09--X3593A
Result file	: 1K11160.12R
Calibration file	: 1K11160.CAL
Method file	: KEMP.MET
%SSR(Kempore)	:

Peak name	Min	R.T.	Max	Height	Amount
Kempore	1.91	2.08	2.21	4985	8289.089844

Analysis Report (B)

Injected on	: JUN 09, 2011 19:54:10
Instrument	: CP09--X3593B
Result file	: 1K11160B.12R
Calibration file	: 1K11160B.CAL
Method file	: KEMPB.MET
%SSR(Kempore)	:

Peak name	Min	R.T.	Max	Height	Amount
Kempore	4.60	4.74	4.90	4608	8027.290527

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Kempore	(A)	8289	<1000	<230			

Units: ug/l

Reviewed by: _____
Date: 6/16/11

Verified by: Valerie Tomayko
Date: JUN 17 2011

Valerie Tomayko
Senior Specialist

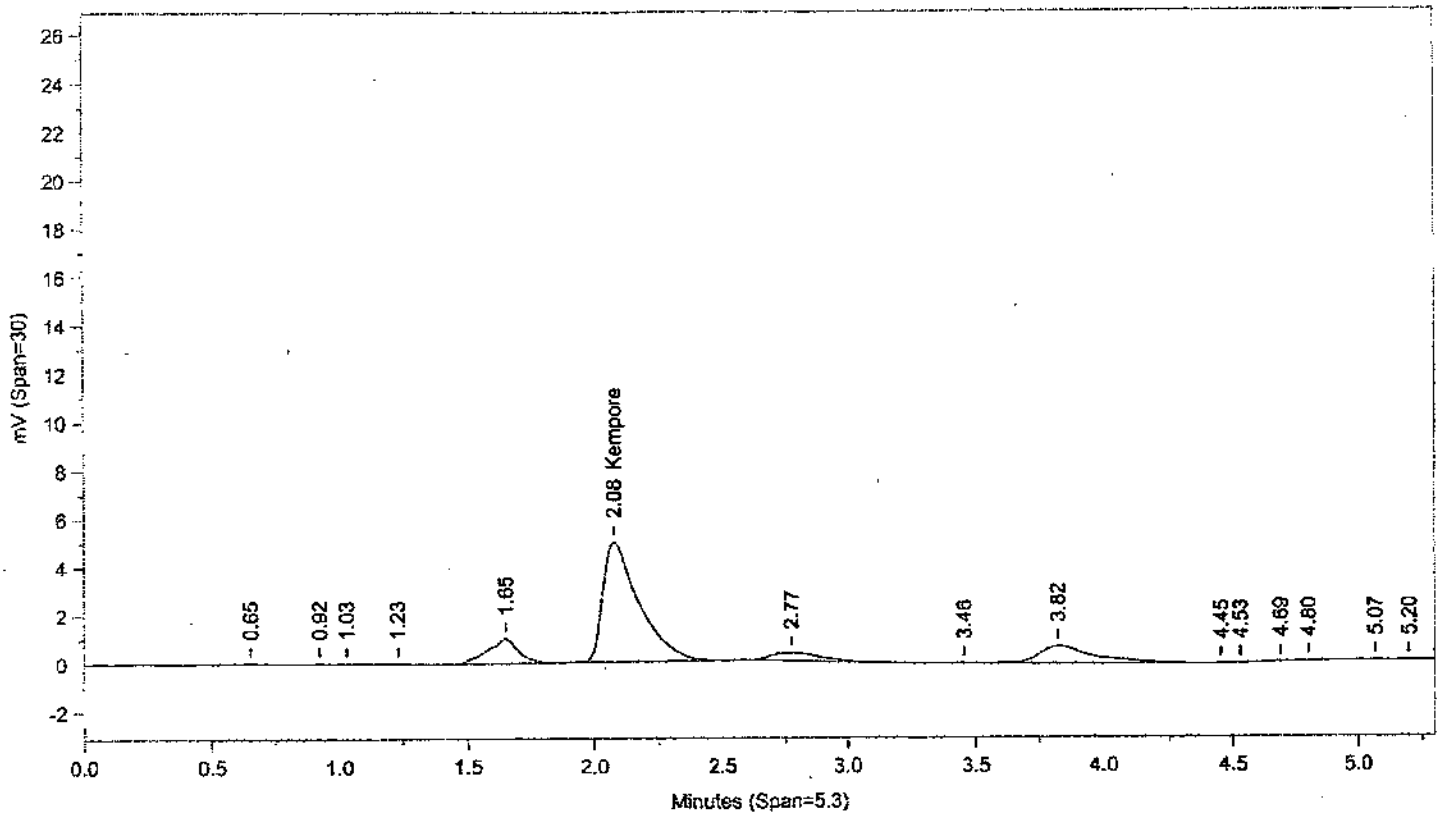
OLN28 8889

%Difference = High - Low Amount divided by the Average times 100

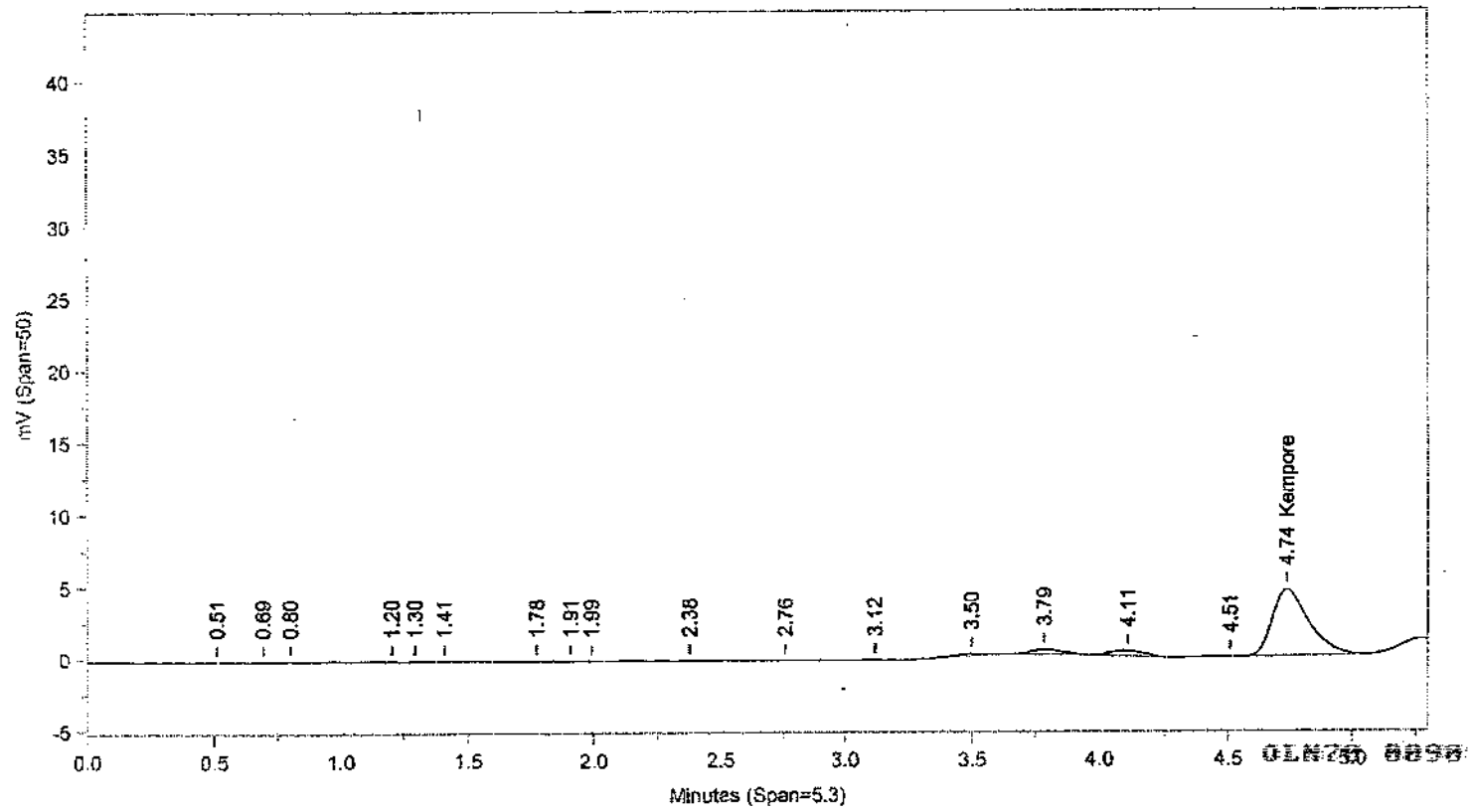
* Recovery outside QC Limits

Printed on: 6/10/11 16:49:39

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\LK11160.12R



Instrument ID: CP09--X3593A Injected On: 6/9/2011 7:54:09 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--X3593B Injected On: 6/9/2011 7:54:09 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 100% Phosphate Buffer

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantitation: Height

Detector B Parameters:
Threshold: -5 Width: 0.1
Calibration Type: External

Area Reject: 0
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.08	4985	8289.09	Kempore	4.738	4608	8027.291	Kempore

Files:
Area File: C:\CPWIN\DATA1\IK11160.12A
Area File: C:\CPWIN\DATA1\IK11160B.12A
Method A: C:\CPWIN\DATA1\KEMP.MET
Method B: C:\CPWIN\DATA1\KEMPB.MET
Calibration File A: C:\CPWIN\DATA1\IK11160.CAL
Calibration File B: C:\CPWIN\DATA1\IK11160B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/9/2011 8:05:22 PM
File Reported On: 6/9/2011 at 8:05:31 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog Assigned to: 1566 James Place Reviewed by: WT 6/7 Start Date: 6/7/11 Start time: 6:00pm

111580040A Tech 1: [illegible] Tech 2:

Dept: 24	Prep Analysis: 00000				Kempore in Water						
QC	Sample Code	Amt (uL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6308056MS	ISC1-	10			ST1114324A	1.0	10				Yellowish
6308057MSD	ISC1-	10			"	1.0	10				"
BLANKA	PBLK40158	10					10			N/C	
LCSA	LCS40158	10			ST1114324A	1.0	10			"	
LCSDA	LCSD40158	10			"	1.0	10			"	

ST1114324A - Kempore Stock

Sample #		Sample Code	Amt (uL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6308055BKG	ISC1-	10			10				Yellowish	02727	06/17/2011	P
2	6308058	ISC1D	10			10				"	02727	06/17/2011	P
3	6308059	ISC2-	10			10					02727	06/17/2011	P
4	6308074	PZ16R	10			10				Sediment	02727	06/17/2011	P
5	6308075	PZ17R	10			10				"	02727	06/17/2011	P
6	6308076	-SD-1	10			10				"	02727	06/17/2011	P

Rack ID:		Work Station	
Internal Standard		Balance #	

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	111580040A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Opex Data

Case Narrative
Conformance/Nonconformance
Summary

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Pesticide Residue Analysis

Fraction: Opex

Opex in Water

Sample #	Client ID	Matrix Liquid	Solid	Comments
6308074	OC-SW-PZ-16RR-XXX	X		
6308075	OC-SW-PZ-17RR-XXX	X		
6308076	OC-SW-SD-1-XXX	X		

See QC Reference List for Associated Batch QC Samples

SAMPLE PREPARATION:

No problems were encountered with the preparation of the samples.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

(Sample number(s): 6308075-6308076: Analysis: 02726)
The sample was injected numerous times. Each time the response for opex in the calibration check standard injected after the sample was outside the acceptance criteria. Therefore, this effect is attributed to the sample matrix and the data is reported.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Site specific matrix QC samples were not submitted for this SDG. The batch matrix QC was performed on samples from another project. Therefore the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

All QC is within specification.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Pesticide Residue Analysis
Fraction: Opex

Narrative Reviewed and Approved 6/24/2011 (Date) by M. Susan Kreider
M. SUSAN KREIDER
SENIOR SPECIALIST

OLN70 8892

Quality Control and Calibration Summary Forms

Lancaster Laboratories

Quality Control Reference List
Pesticide Residue Analysis

CLIENT: Olin Corporation
SDG: OLN70

Fraction: Opex

Analysis	Batch Number	Sample Number	Analysis Date
Opex in Water	111610022A	PBLK22161	06/10/2011 21:09:00
		LCS22161	06/10/2011 21:16:00
		LCSD22161	06/10/2011 21:23:00
		6308074	06/10/2011 22:04:00
		6308075	06/10/2011 22:18:00
		6308076	06/10/2011 22:24:00

OLN70 0899

Lancaster Laboratories

Quality Control Summary
Method Blank
Pesticide Residue Analysis
SDG: OLN70
Matrix: LIQUID

Fraction: Opex

111610022 / PBLK22161 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Opex in Water	06/10/11	N.D.	ug/l	20	100

OLN70 0185

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70
Matrix: LIQUID

Pesticide Residue Analysis

Fraction: Opex

LCS: LCS22161 LCSD: LCSD22161 Analyte	Batch: **111610022A** (Sample number(s): 6308074-6308076)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Opex in Water	740	690	690	93	93	70-130	0	30

OLN70 2101

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1X11161

GC Column (1) : SUP-PAH ID: 4.6 (mm) Update File:

Date(s) Analyzed: 6/10/2011 6/10/2011

COMPOUND	RT OF STANDARDS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	~~MIDPOINT~~ Level 1 RT	RT WINDOW FROM	TO
Opex	2.12	2.11	2.12	2.13	2.13	2.12	2.02	2.22

JH 1566
6/14/11

GLN70 0182

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1X11161

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date(s) Analyzed: 6/10/2011 6/10/2011

COMPOUND	CALIBRATION FACTORS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD
Opex	6.71E+00	5.31E+00	4.59E+00	4.46E+00	4.32E+00	5.08E+00	19.4

Linear

Average % RSD: 19.4

1566 6/14/11

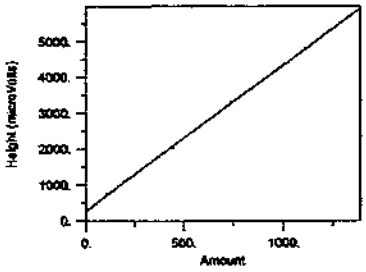
GLN76 8183

FORM VI-2

Calibration File Name: **C:\CPWIN\DATA1\1X11161.CAL** Version = 19
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex
Retention time = 2.120 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	744.5	6.706909	1X11161.08A	6/14/2011 6:47:5
2	222.000	1178.8	5.309752	1X11161.07A	6/14/2011 6:47:3
3	444.000	2039.2	4.592723	1X11161.06A	6/14/2011 6:47:0
4	740.000	3302.1	4.462337	1X11161.05A	6/14/2011 6:46:4
5	1110.000	4793.2	4.318211	1X11161.04A	6/14/2011 6:46:1



Calibration formula: Y = 4.07 X + 273.425
Fit type = Linear with equal weighting
Coefficient of determination = 0.9998, Average error = 1.08%
Average CF = 5.0780 with RSD = 19.44%

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Calibration File: 1X11161B

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Update File:

Date(s) Analyzed: 6/10/2011 6/10/2011

COMPOUND	RT OF STANDARDS					~~MIDPOINT~~ Level 1	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RT	FROM	TO
Opex	5.31	5.34	5.33	5.25	5.25	5.31	5.21	5.41

6/14/11

01LH70 6185

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Calibration File: 1X11161B

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Date(s) Analyzed: 6/10/2011 6/10/2011

COMPOUND	CALIBRATION FACTORS						%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	
Opex	3.41E+00	2.79E+00	2.33E+00	2.13E+00	2.01E+00	2.53E+00	22.5

Linear

Average % RSD: 22.5

JP 1566 6/14/11

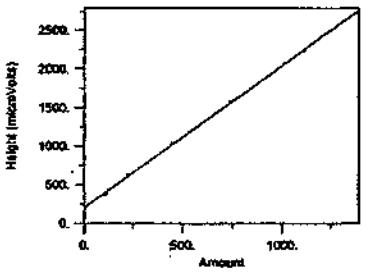
OLN70 0106

FORM VI-2

Calibration File Name: **C:\CPWIN\DATA1\1X11161B.CAL** Version = 21
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex
Retention time = 5.311 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	378.0	3.405406	Manual	6/14/2011 6:52:1
2	222.000	619.5	2.790514	1X11161B.07A	6/14/2011 6:47:4
3	444.000	1034.2	2.329351	1X11161B.06A	6/14/2011 6:47:2
4	740.000	1576.4	2.130264	1X11161B.05A	6/14/2011 6:46:5
5	1110.000	2232.3	2.011071	1X11161B.04A	6/14/2011 6:46:3



Calibration formula: Y = 1.845 X + 198.64
Fit type = Linear with equal weighting
Coefficient of determination = 0.9994, Average error = 2.24%
Average CF = 2.5333 with RSD = 22.53%

OLM78 0107

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1X11166

GC Column (1) : SUP-PAH ID: 4.6 (mm) Update File:

Date(s) Analyzed: 6/15/2011 6/15/2011

COMPOUND	RT OF STANDARDS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	~~MIDPOINT~~ level 1 RT	RT WINDOW FROM	TO
Opex	2.24	2.24	2.23	2.23	2.22	2.24	2.14	2.34

6/14/11

OLN78 8169

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Calibration File: 1X11166

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date(s) Analyzed: 6/15/2011 6/15/2011

COMPOUND	CALIBRATION FACTORS						%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	
Opex	5.09E+00	3.64E+00	3.41E+00	3.27E+00	3.26E+00	3.73E+00	20.7

Linear

Average % RSD: 20.7

6/15/11

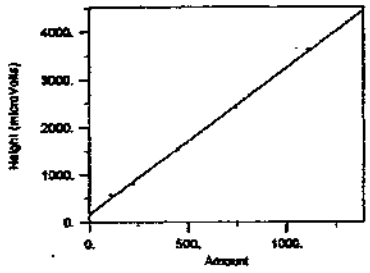
01N70 0169

FORM VI-2

Calibration File Name: **C:\CPWIN\DATA1\1X11166.CAL** Version = 8
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex
Retention time = 2.243 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	565.0	5.089663	1X11166.08A	6/16/2011 8:53:0
2	222.000	808.1	3.640278	1X11166.07A	6/16/2011 8:52:4
3	444.000	1515.3	3.412851	1X11166.06A	6/16/2011 8:52:1
4	740.000	2417.8	3.267278	1X11166.05A	6/16/2011 8:51:5
5	1110.000	3621.6	3.262698	1X11166.04A	6/16/2011 8:51:2



Calibration formula: Y = 3.089 X + 162.466
Fit type = Linear with equal weighting
Coefficient of determination = 0.9988, Average error = 3.97%
Average CF = 3.7346 with RSD = 20.70%

6D

INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Calibration File: 1X11166B

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Update File:

Date(s) Analyzed: 6/15/2011 6/15/2011

COMPOUND	RT OF STANDARDS LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MIDPOINT level 2 RT	RT WINDOW FROM	TO
Opex	5.10	5.08	5.04	4.98	5.03	5.10	5.00	5.20

6/15/11

6LN7B 0111

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Calibration File: 1X11166B

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Date(s) Analyzed: 6/15/2011 6/15/2011

COMPOUND	CALIBRATION FACTORS						
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	%RSD
Opex	4.34E+00	3.29E+00	2.74E+00	2.62E+00	2.59E+00	3.12E+00	23.8

Linear

Average % RSD: 23.8

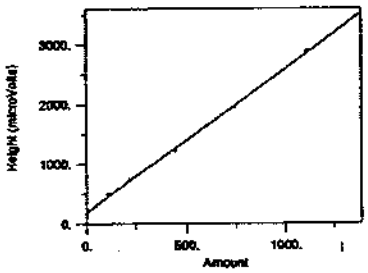
6/14/11

GLN70 0112

Calibration File Name: **C:\CPWIN\DATA1\1X11166B.CAL** Version = 9
External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold = 100
Reference peak area reject threshold = 1000
Amount units =
1 components with 5 levels each

1 Opex
Retention time = 5.102 min., Search window = 0.100 min.
Low alarm amount = 0, High alarm amount = 0
Group number = 0, Component constant = 0
No retention time reference component
Single peak quantification by height

Level	Amount	Height	Height/Amt	Source	Date and time
1	111.000	482.1	4.343294	1X11166B.08A	6/16/2011 8:53:2
2	222.000	729.6	3.286291	1X11166B.07A	6/16/2011 8:52:5
3	444.000	1214.9	2.736173	1X11166B.06A	6/16/2011 8:52:3
4	740.000	1937.5	2.618241	1X11166B.05A	6/16/2011 8:52:0
5	1110.000	2879.2	2.593915	1X11166B.04A	6/16/2011 8:51:4



Calibration formula: Y = 2.399 X + 188.287
Fit type = Linear with equal weighting
Coefficient of determination = 0.9990, Average error = 2.53%
Average CF = 3.1156 with RSD = 23.80%

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Init. Calib Date(s): 06/10/11 06/10/11

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date Analyzed: 06/10/11

Lab File ID: 1X11161.19R Time Analyzed: 22:11

Lab Standard ID: OPEX3DW Initial Calibration: 1X11161

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	2.18	2.02	2.22	388.85	444.00	-12.4

Average of %D: 12.4

GLN78 0114

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories　　Contract:

Lab Code:　　Case No.:　　SAS No.:　　SDG No.:

Instrument: K3593B　　Init. Calib Date(s): 06/10/11　　06/10/11

GC Column (2) : CAPCELL-CN　　ID: 4.6 (mm)　　Date Analyzed: 06/10/11

Lab File ID: 1X11161B.19R　　Time Analyzed: 22:11

Lab Standard ID: OPEX3DW　　Initial Calibration: 1X11161B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.10	5.21	5.41	435.98	444.00	-1.8

Average of %D: 1.8

1

0LH78 0115

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Init. Calib Date(s): 06/10/11 06/10/11

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date Analyzed: 06/10/11

Lab File ID: 1X11161.30R Time Analyzed: 23:26

Lab Standard ID: OPEX3DX Initial Calibration: 1X11161

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	2.18	2.02	2.22	300.56	444.00	-32.3
					Average of %D:	32.3

OLN78 9116

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Init. Calib Date(s): 06/10/11 06/10/11

GC Column (2): CAPCELL-CN ID: 4.6 (mm) Date Analyzed: 06/10/11

Lab File ID: 1X11161B.30R Time Analyzed: 23:26

Lab Standard ID: OPEX3DX Initial Calibration: 1X11161B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.07	5.21	5.41	351.56	444.00	-20.8
					Average of %D:	20.8

OLN76 0117

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593A Init. Calib Date(s): 06/15/11 06/15/11

GC Column (1) : SUP-PAH ID: 4.6 (mm) Date Analyzed: 06/15/11

Lab File ID: 1X11166.20R Time Analyzed: 21:22

Lab Standard ID: OPEX3DZ Initial Calibration: 1X11166

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	2.19	2.14	2.34	431.18	444.00	-2.9
					Average of %D:	2.9

OLN26 8118

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: K3593B Init. Calib Date(s): 06/15/11 06/15/11

GC Column (2) : CAPCELL-CN ID: 4.6 (mm) Date Analyzed: 06/15/11

Lab File ID: 1X11166B.20R Time Analyzed: 21:22

Lab Standard ID: OPEX3DZ Initial Calibration: 1X11166B

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D
Opex	5.17	5.00	5.20	377.31	444.00	-15.0
					Average of %D:	15.0

8D
ANALYTICAL SEQUENCE

Sequence: 1X11161 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: SUP-PAH ID: 4.6

Instrument: K3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	06/10/2011	20:07:47	1X11161
002		CONDITIONER	06/10/2011	20:14:38	1X11161
003		CONDITIONER	06/10/2011	20:21:30	1X11161
004	OPEX5AA	OPEX51124C	06/10/2011	20:28:21	1X11161
005	OPEX4AA	OPEX41124C	06/10/2011	20:35:12	1X11161
006	OPEX3AA	OPEX31124C	06/10/2011	20:42:03	1X11161
007	OPEX2AA	OPEX21124C	06/10/2011	20:48:55	1X11161
008	OPEX1AA	OPEX11124C	06/10/2011	20:55:46	1X11161
009	MDOXXAA	MDOXX1124C	06/10/2011	21:02:38	1X11161
010	PBLK22161	BLANKA	06/10/2011	21:09:29	1X11161
011	LCS22161	LCSA	06/10/2011	21:16:20	1X11161
012	LCSD22161	LCSDA	06/10/2011	21:23:12	1X11161
013	ISC1-	6308055	06/10/2011	21:30:04	1X11161
014	ISC1-	6308056	06/10/2011	21:36:55	1X11161
015	ISC1-	6308057	06/10/2011	21:43:47	1X11161
016	ISC1D	6308058	06/10/2011	21:50:39	1X11161
017	ISC2-	6308059	06/10/2011	21:57:31	1X11161
018	PZ16R	6308074	06/10/2011	22:04:22	1X11161
019	OPEX3DW	OPEX31124C	06/10/2011	22:11:14	1X11161
020	PZ17R	6308075	06/10/2011	22:18:05	1X11161
021	-SD-1	6308076	06/10/2011	22:24:57	1X11161
022	5-XXX	6309550	06/10/2011	22:31:49	1X11161
023	1-XXX	6309553	06/10/2011	22:38:41	1X11161
024	2-XXX	6309554	06/10/2011	22:45:34	1X11161
025	S-XXX	6309555	06/10/2011	22:52:26	1X11161
026	EDSD0	6310720	06/10/2011	22:59:18	1X11161
027	EDSD1	6310721	06/10/2011	23:06:10	1X11161
028	EDSD2	6310722	06/10/2011	23:13:03	1X11161
029	EDSD5	6310723	06/10/2011	23:19:55	1X11161
030	OPEX3DX	OPEX31124C	06/10/2011	23:26:47	1X11161
031	MMB-2	6310724	06/10/2011	23:33:39	1X11161
032	OPEX3DY	OPEX31124C	06/10/2011	23:40:32	1X11161

8D
ANALYTICAL SEQUENCE

Sequence: 1X11161B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CAPCELL-CN ID: 4.6

Instrument: K3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	06/10/2011	20:07:47	1X11161B
002		CONDITIONER	06/10/2011	20:14:38	1X11161B
003		CONDITIONER	06/10/2011	20:21:30	1X11161B
004	OPEX5AA	OPEX51124C	06/10/2011	20:28:21	1X11161B
005	OPEX4AA	OPEX41124C	06/10/2011	20:35:12	1X11161B
006	OPEX3AA	OPEX31124C	06/10/2011	20:42:03	1X11161B
007	OPEX2AA	OPEX21124C	06/10/2011	20:48:55	1X11161B
008	OPEX1AA	OPEX11124C	06/10/2011	20:55:46	1X11161B
009	MDOXXAA	MDOXX1124C	06/10/2011	21:02:38	1X11161B
010	PBLK22161	BLANKA	06/10/2011	21:09:29	1X11161B
011	LCS22161	LCSA	06/10/2011	21:16:20	1X11161B
012	LCSD22161	LCSDA	06/10/2011	21:23:12	1X11161B
013	ISC1-	6308055	06/10/2011	21:30:04	1X11161B
014	ISC1-	6308056	06/10/2011	21:36:55	1X11161B
015	ISC1-	6308057	06/10/2011	21:43:47	1X11161B
016	ISC1D	6308058	06/10/2011	21:50:39	1X11161B
017	ISC2-	6308059	06/10/2011	21:57:31	1X11161B
018	PZ16R	6308074	06/10/2011	22:04:22	1X11161B
019	OPEX3DW	OPEX31124C	06/10/2011	22:11:14	1X11161B
020	PZ17R	6308075	06/10/2011	22:18:05	1X11161B
021	-SD-1	6308076	06/10/2011	22:24:57	1X11161B
022	6-XXX	6309550	06/10/2011	22:31:49	1X11161B
023	1-XXX	6309553	06/10/2011	22:38:41	1X11161B
024	2-XXX	6309554	06/10/2011	22:45:34	1X11161B
025	S-XXX	6309555	06/10/2011	22:52:26	1X11161B
026	EDSD0	6310720	06/10/2011	22:59:18	1X11161B
027	EDSD1	6310721	06/10/2011	23:06:10	1X11161B
028	EDSD2	6310722	06/10/2011	23:13:03	1X11161B
029	EDSD5	6310723	06/10/2011	23:19:55	1X11161B
030	OPEX3DX	OPEX31124C	06/10/2011	23:26:47	1X11161B
031	MMB-2	6310724	06/10/2011	23:33:39	1X11161B
032	OPEX3DY	OPEX31124C	06/10/2011	23:40:32	1X11161B

8D
ANALYTICAL SEQUENCE

Sequence: 1X11166 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: SUP-PAH ID: 4.6

Instrument: K3593A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	06/15/2011	19:11:51	1X11166
002		CONDITIONER	06/15/2011	19:18:42	1X11166
003		CONDITIONER	06/15/2011	19:25:33	1X11166
004	OPEX5AA	OPEX51124C	06/15/2011	19:32:24	1X11166
005	OPEX4AA	OPEX41124C	06/15/2011	19:39:16	1X11166
006	OPEX3AA	OPEX31124C	06/15/2011	19:46:07	1X11166
007	OPEX2AA	OPEX21124C	06/15/2011	19:52:59	1X11166
008	OPEX1AA	OPEX11124C	06/15/2011	19:59:49	1X11166
009	MDOXXAA	MDOXX1124C	06/15/2011	20:06:41	1X11166
010	PZ17R	6308075	06/15/2011	20:13:32	1X11166
011	-SD-1	6308076	06/15/2011	20:20:23	1X11166
012	5-XXX	6309550	06/15/2011	20:27:15	1X11166
013	1-XXX	6309553	06/15/2011	20:34:06	1X11166
014	2-XXX	6309554	06/15/2011	20:40:59	1X11166
015	S-XXX	6309555	06/15/2011	20:47:50	1X11166
016	EDSD0	6310720	06/15/2011	20:54:42	1X11166
017	EDSD1	6310721	06/15/2011	21:01:34	1X11166
018	EDSD2	6310722	06/15/2011	21:08:25	1X11166
019	EDSD5	6310723	06/15/2011	21:15:17	1X11166
020	OPEX3DZ	OPEX31124C	06/15/2011	21:22:08	1X11166
021	MMB-2	6310724	06/15/2011	21:29:00	1X11166
022	OPEX3EA	OPEX31124C	06/15/2011	21:35:52	1X11166

8D
ANALYTICAL SEQUENCE

Sequence: 1X11166B Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CAPCELL-CN ID: 4.6

Instrument: K3593B

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	06/15/2011	19:11:51	1X11166B
002		CONDITIONER	06/15/2011	19:18:42	1X11166B
003		CONDITIONER	06/15/2011	19:25:33	1X11166B
004	OPEX5AA	OPEX51124C	06/15/2011	19:32:24	1X11166B
005	OPEX4AA	OPEX41124C	06/15/2011	19:39:16	1X11166B
006	OPEX3AA	OPEX31124C	06/15/2011	19:46:07	1X11166B
007	OPEX2AA	OPEX21124C	06/15/2011	19:52:59	1X11166B
008	OPEX1AA	OPEX11124C	06/15/2011	19:59:49	1X11166B
009	MDOXXAA	MDOXX1124C	06/15/2011	20:06:41	1X11166B
010	PZ17R	6308075	06/15/2011	20:13:32	1X11166B
011	-SD-1	6308076	06/15/2011	20:20:23	1X11166B
012	5-XXX	6309550	06/15/2011	20:27:15	1X11166B
013	1-XXX	6309553	06/15/2011	20:34:06	1X11166B
014	2-XXX	6309554	06/15/2011	20:40:59	1X11166B
015	S-XXX	6309555	06/15/2011	20:47:50	1X11166B
016	EDSD0	6310720	06/15/2011	20:54:42	1X11166B
017	EDSD1	6310721	06/15/2011	21:01:34	1X11166B
018	EDSD2	6310722	06/15/2011	21:08:25	1X11166B
019	EDSD5	6310723	06/15/2011	21:15:17	1X11166B
020	OPEX3DZ	OPEX31124C	06/15/2011	21:22:08	1X11166B
021	MMB-2	6310724	06/15/2011	21:29:00	1X11166B
022	OPEX3EA	OPEX31124C	06/15/2011	21:35:52	1X11166B

10A

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS22161

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Lab Sample ID: LCSA **Date(s) Analyzed:** 6/10/2011 6/10/2011

Instrument ID (1): K3593A **Instrument ID (2):** K3593B

GC Column (1): **ID:** (mm) **GC Column (2):** **ID:** (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.11	2.02	2.22	690	
	2	5.32	5.21	5.41	690	0.0

OLM7B 8124

FORM X PEST - 1

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCSD22161

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Lab Sample ID: LCSDA **Date(s) Analyzed:** 6/10/2011 6/10/2011

Instrument ID (1): K3593A **Instrument ID (2):** K3593B

GC Column (1): **ID:** (mm) **GC Column (2):** **ID:** (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Opex	1	2.13	2.02	2.22	690	
	2	5.24	5.21	5.41	690	0.0

01N78 0125

Sample Data

Lancaster Laboratories

LOQ/MDL Summary
Pesticide Residue Analysis

SDG: OLN70

Fraction: Opex

02726: Opex in Water Analyte Name	Default MDL	Default LOQ	Units
Opex in Water	20	100	ug/l

OLN70 0127

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PZ16R

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308074

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11161.18R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/10/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN70 8120

Lancaster Laboratories Single Component Data Summary

Sample Name: 6308074 PZ16R Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 10, 2011 22:04:22
Instrument	: CP09--K3593A
Result file	: 1X11161.18R
Calibration file	: 1X11161.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 10, 2011 22:04:22
Instrument	: CP09--K3593B
Result file	: 1X11161B.18R
Calibration file	: 1X11161B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.21	5.26	5.41	40	-86.032471

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			no pk on confirm

Units: ug/l

Reviewed by: [signature]
Date: 6/15/11

Verified by: Valerie Tomayko
Date: JUN 16 2011

Valerie Tomayko
Senior Specialist

1

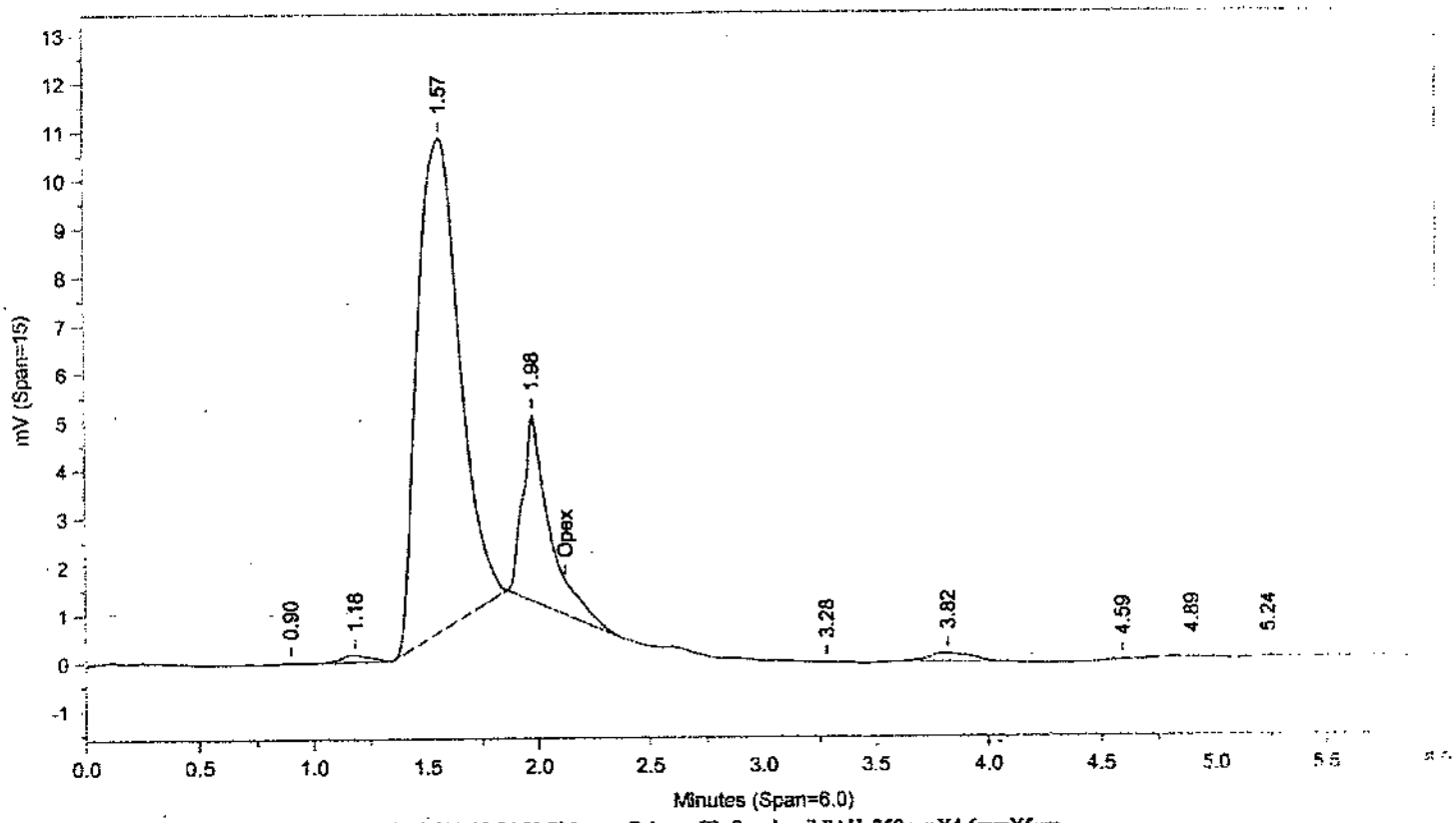
OLN78 0129

%Difference = High - Low Amount divided by the Average times 100

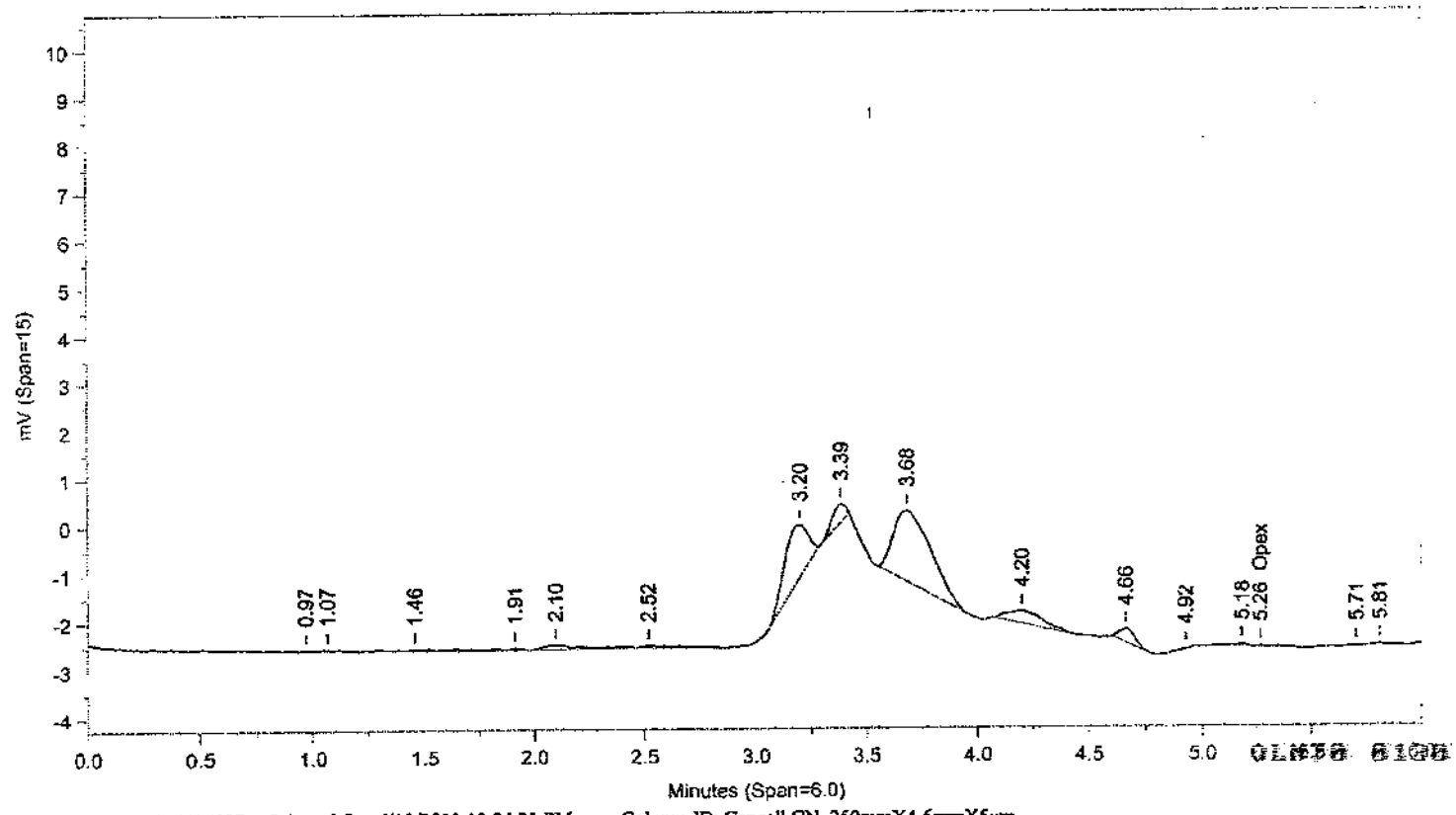
* Recovery outside QC Limits

Printed on: 6/14/11 19:24:03

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA\1X11161.18R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:04:21 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:04:21 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	5.264	40	-86.032	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.18A
Area File: C:\CPWIN\DATA1\1X11161B.18A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:56:22 PM
File Reported On: 6/14/2011 at 6:56:31 PM

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PZ17R

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308075

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11161.20R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/10/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN70 #132

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308075 PZ17R Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 10, 2011 22:18:05
Instrument	: CP09--K3593A
Result file	: 1X11161.20R
Calibration file	: 1X11161.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 10, 2011 22:18:05
Instrument	: CP09--K3593B
Result file	: 1X11161B.20R
Calibration file	: 1X11161B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.21	5.22	5.41	56	-77.345093

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____ Verified by: _____

Date: 6/20/11 Date: 6/20/11

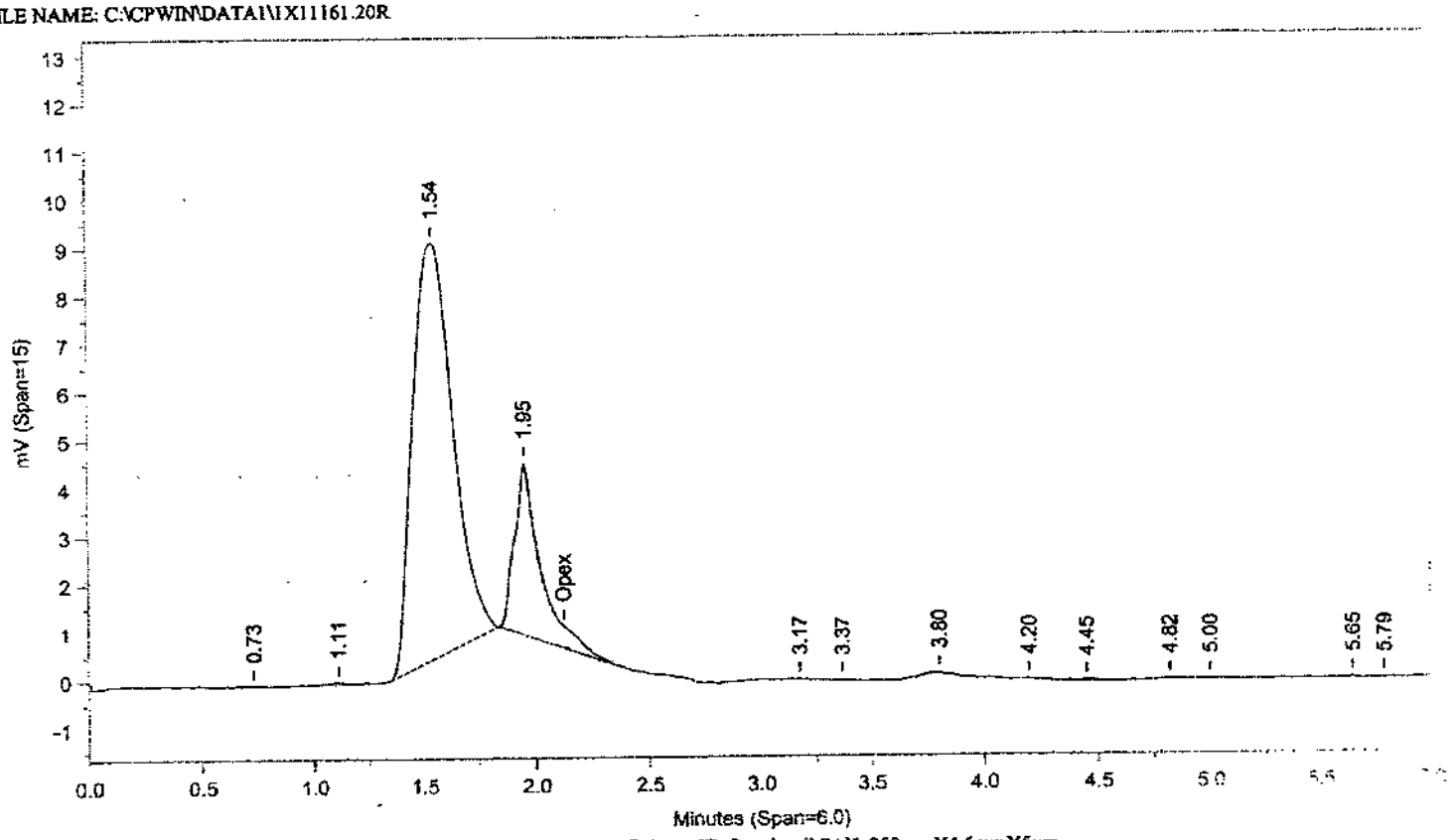
OLN70 0133

%Difference = High - Low Amount divided by the Average times 100

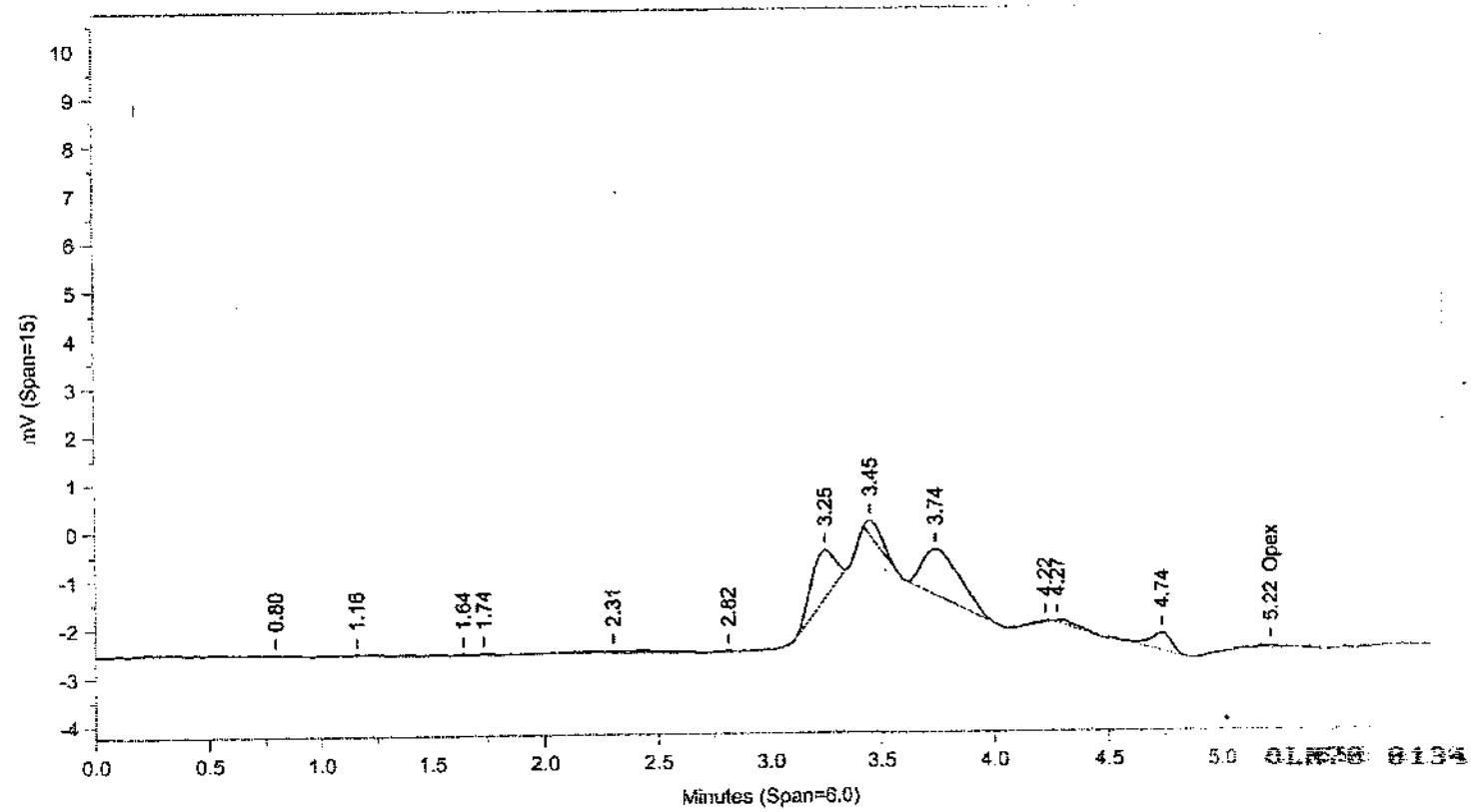
* Recovery outside QC Limits

Printed on: 6/20/2011 08:47:00

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.20R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:18:04 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:18:04 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	5.218	56	-77.345	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.20A
Area File: C:\CPWIN\DATA1\1X11161B.20A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:57:02 PM
File Reported On: 6/14/2011 at 6:57:11 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PZ17R RI

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308075

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11166.10R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/15/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN70 0136

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308075 RI PZ17R Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 15, 2011 20:13:32
Instrument	: CP09--K3593A
Result file	: 1X11166.10R
Calibration file	: 1X11166.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 15, 2011 20:13:32
Instrument	: CP09--K3593B
Result file	: 1X11166B.10R
Calibration file	: 1X11166B.CAL
Method file	: OPEXB.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____ Verified by: _____

Date: 6/17/11 Date: 6/16/11

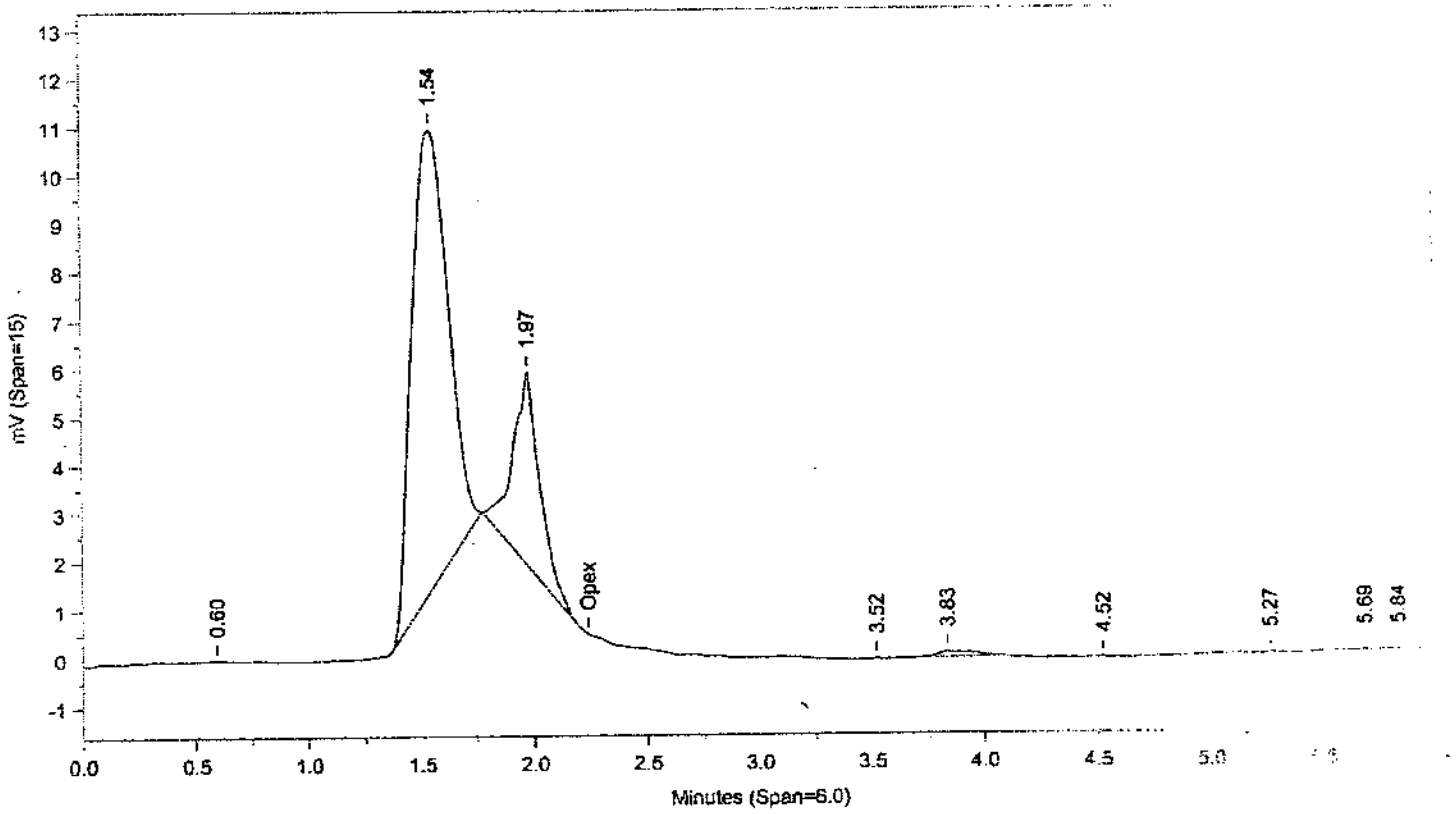
OLN70 0137

%Difference = High - Low Amount divided by the Average times 100

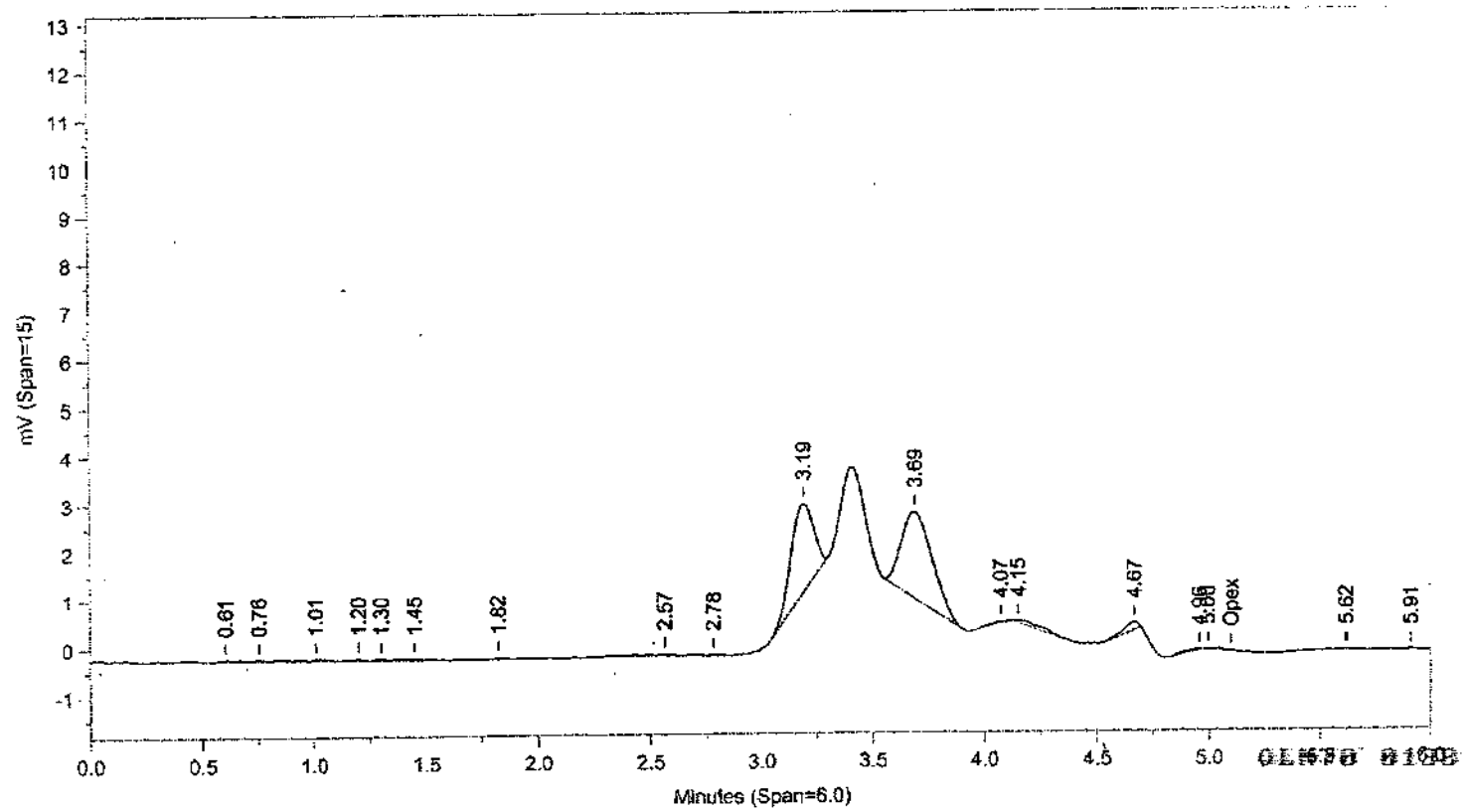
* Recovery outside QC Limits

Printed on: 6/16/11 21:06:58

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.10R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 8:13:31 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 8:13:31 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B

Files:
Area File: C:\CPWIN\DATA1\1X11166.10A
Area File: C:\CPWIN\DATA1\1X11166B.10A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:55:04 PM
File Reported On: 6/16/2011 at 8:55:13 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. -SD-1

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308076

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11161.21R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/10/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN70 0148

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308076 -SD-1 Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 10, 2011 22:24:57
Instrument	: CP09--K3593A
Result file	: 1X11161.21R
Calibration file	: 1X11161.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 10, 2011 22:24:57
Instrument	: CP09--K3593B
Result file	: 1X11161B.21R
Calibration file	: 1X11161B.CAL
Method file	: OPEXB.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: [signature] Verified by: [signature]

Date: 6/20/14 Date: 6/20/14

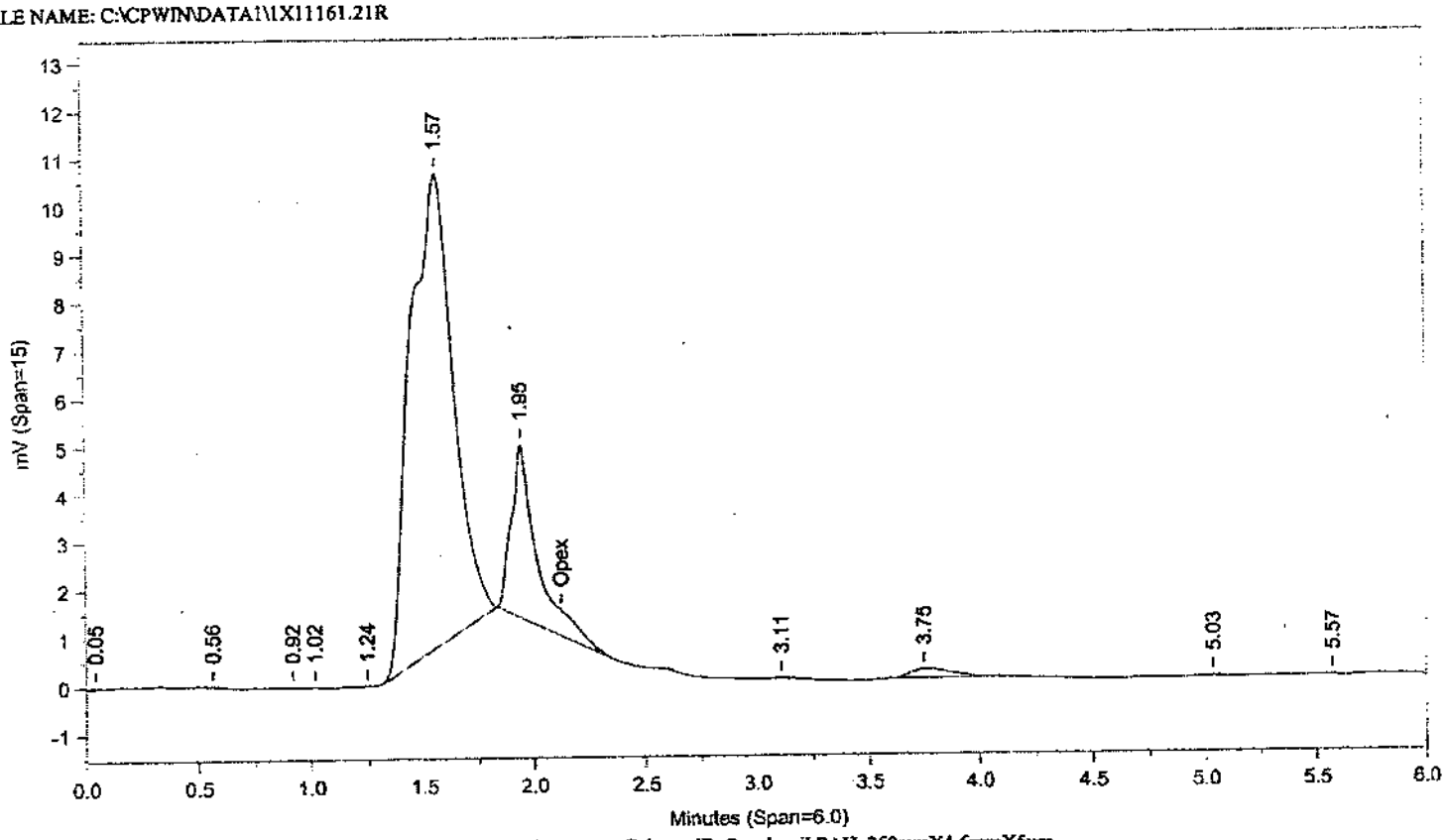
OLN70 8141

%Difference = High - Low Amount divided by the Average times 100

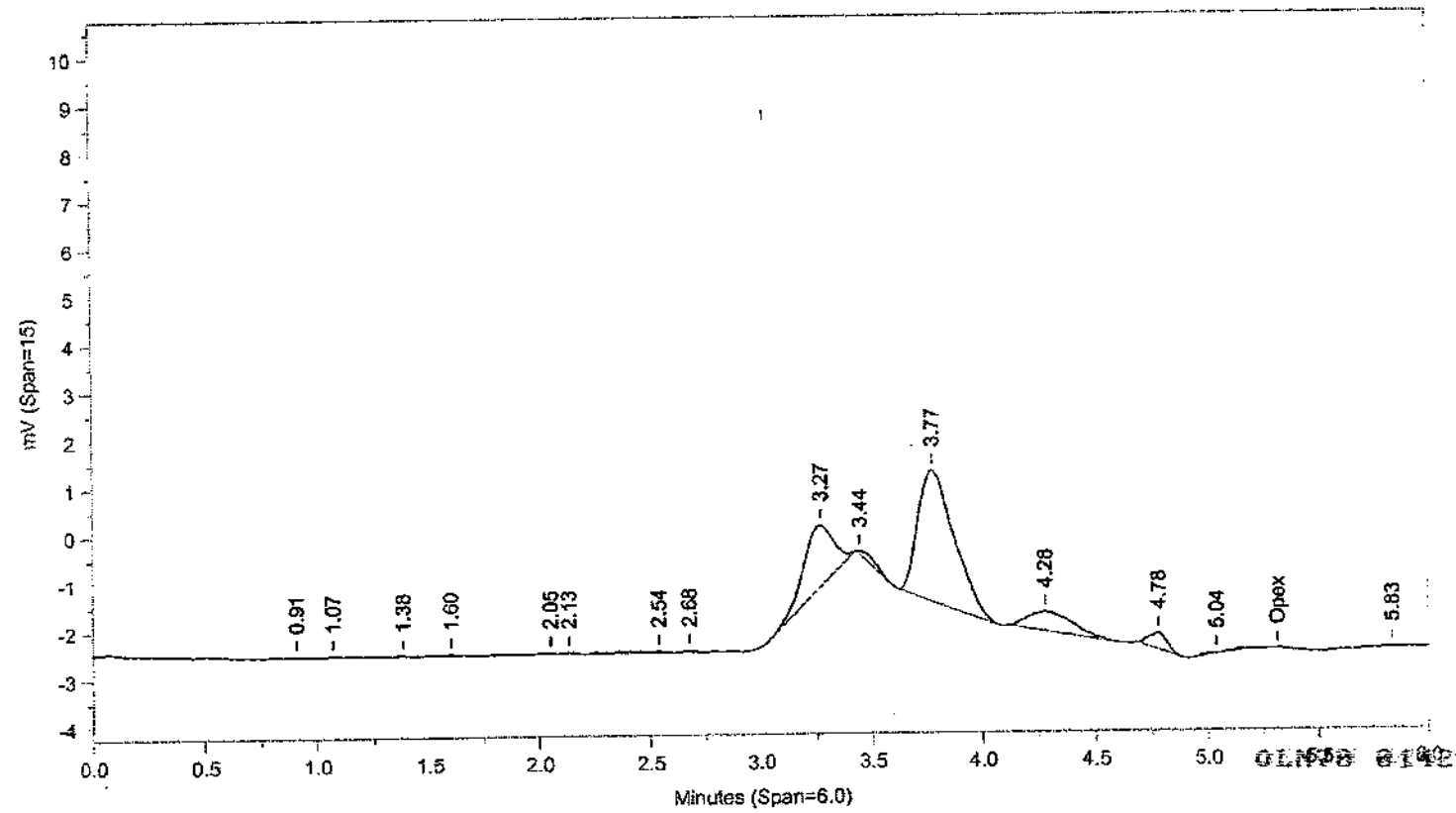
* Recovery outside QC Limits

Printed on: 6/20/2011 08:47:13

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.21R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:24:56 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:24:57 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B

Files:
Area File: C:\CPWIN\DATA1\IX11161.21A
Area File: C:\CPWIN\DATA1\IX11161B.21A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11161.CAL
Calibration File B: C:\CPWIN\DATA1\IX11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:57:22 PM
File Reported On: 6/14/2011 at 6:57:31 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO.

-SD-1 RI

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:** OLN70

Matrix: (soil/water) WATER **Lab Sample ID:** 6308076

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11166.11R

% Moisture: **Decanted: (Y/N)** **Date Received:** 6/7/2011

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/15/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLN70 02144

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6308076 RI -SD-1 Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: OLN70 State: MA
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 15, 2011 20:20:23
Instrument	: CP09--K3593A
Result file	: 1X11166.11R
Calibration file	: 1X11166.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 15, 2011 20:20:23
Instrument	: CP09--K3593B
Result file	: 1X11166B.11R
Calibration file	: 1X11166B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.00	5.10	5.20	24	-68.524536

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____ Verified by: _____

Date: 6/17/11 Date: 6/19/11

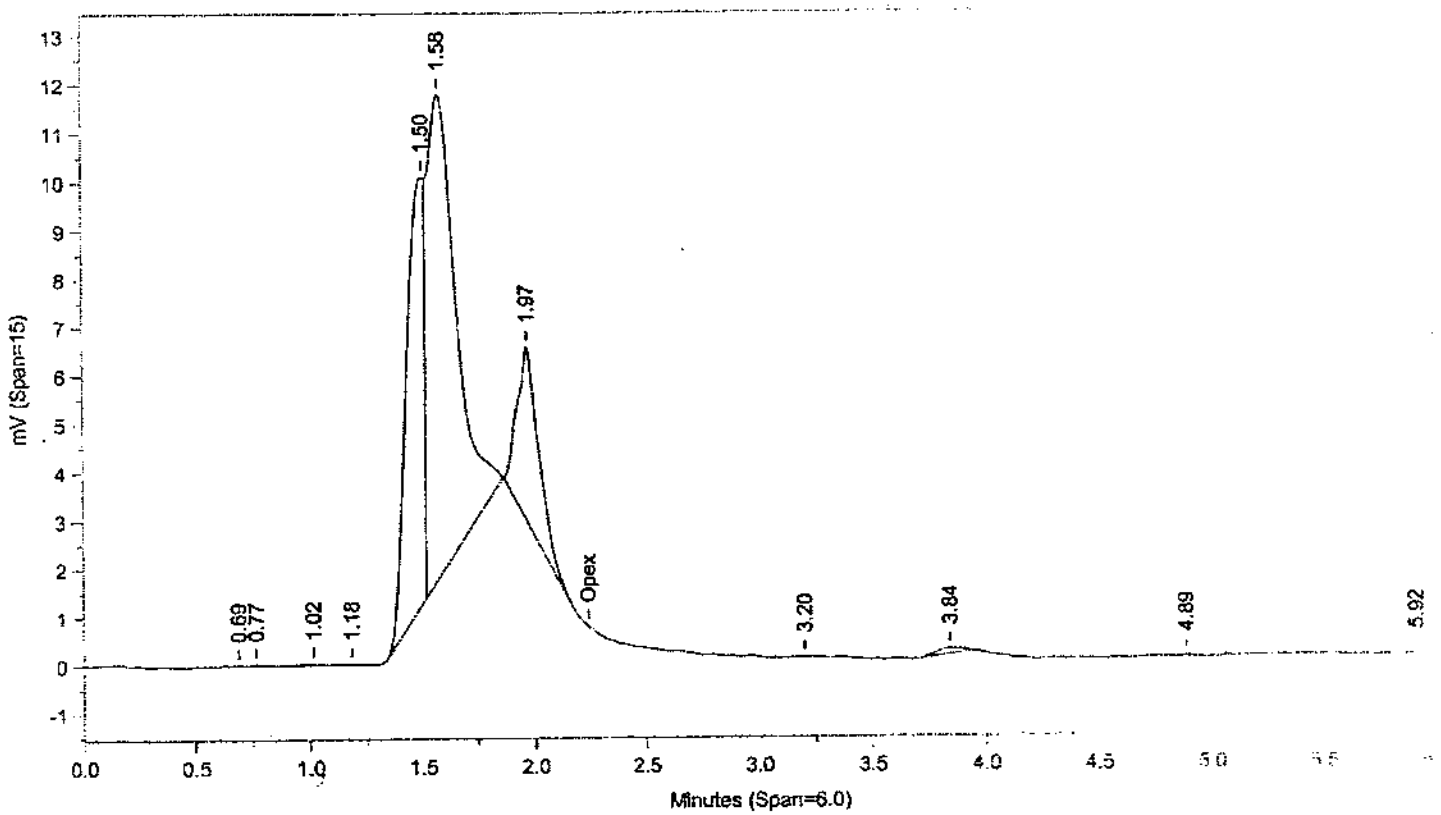
OLN70 0145

%Difference = High - Low Amount divided by the Average times 100

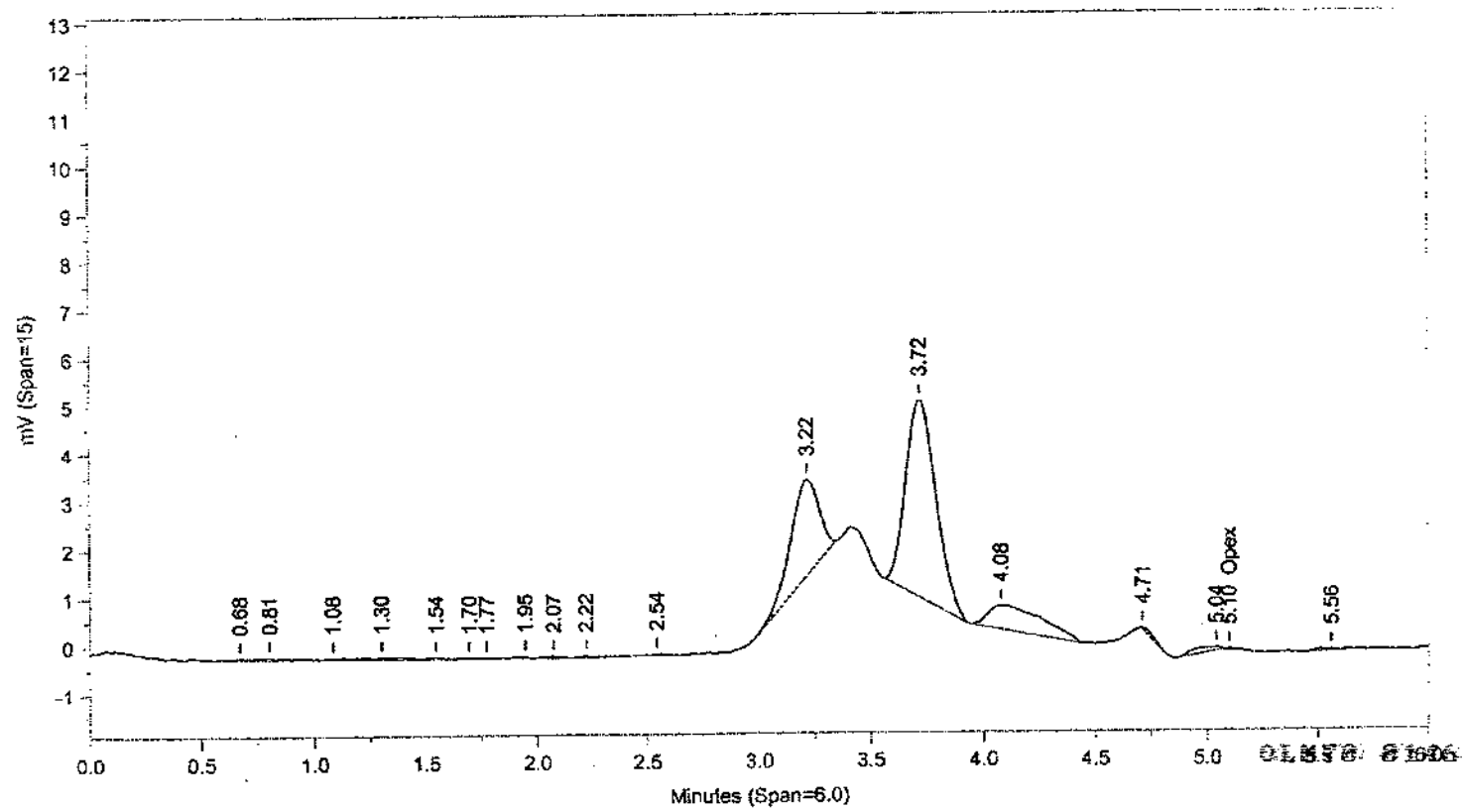
* Recovery outside QC Limits

Printed on: 6/16/11 21:07:20

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.11R



Instrument ID: CP09–K3593A Injected On: 6/15/2011 8:20:22 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09–K3593B Injected On: 6/15/2011 8:20:22 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	5.101	24	-68.525	Opex

Files:
Area File: C:\CPWIN\DATA1\IX11166.11A
Area File: C:\CPWIN\DATA1\IX11166B.11A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11166.CAL
Calibration File B: C:\CPWIN\DATA1\IX11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:55:24 PM
File Reported On: 6/16/2011 at 8:55:33 PM

Standards Data

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\cp9\C-Drive\CPWIN\DATA1\1x11161.seq

Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \\cp9\C-Drive\CPWIN\data1

Number of Entries: 32

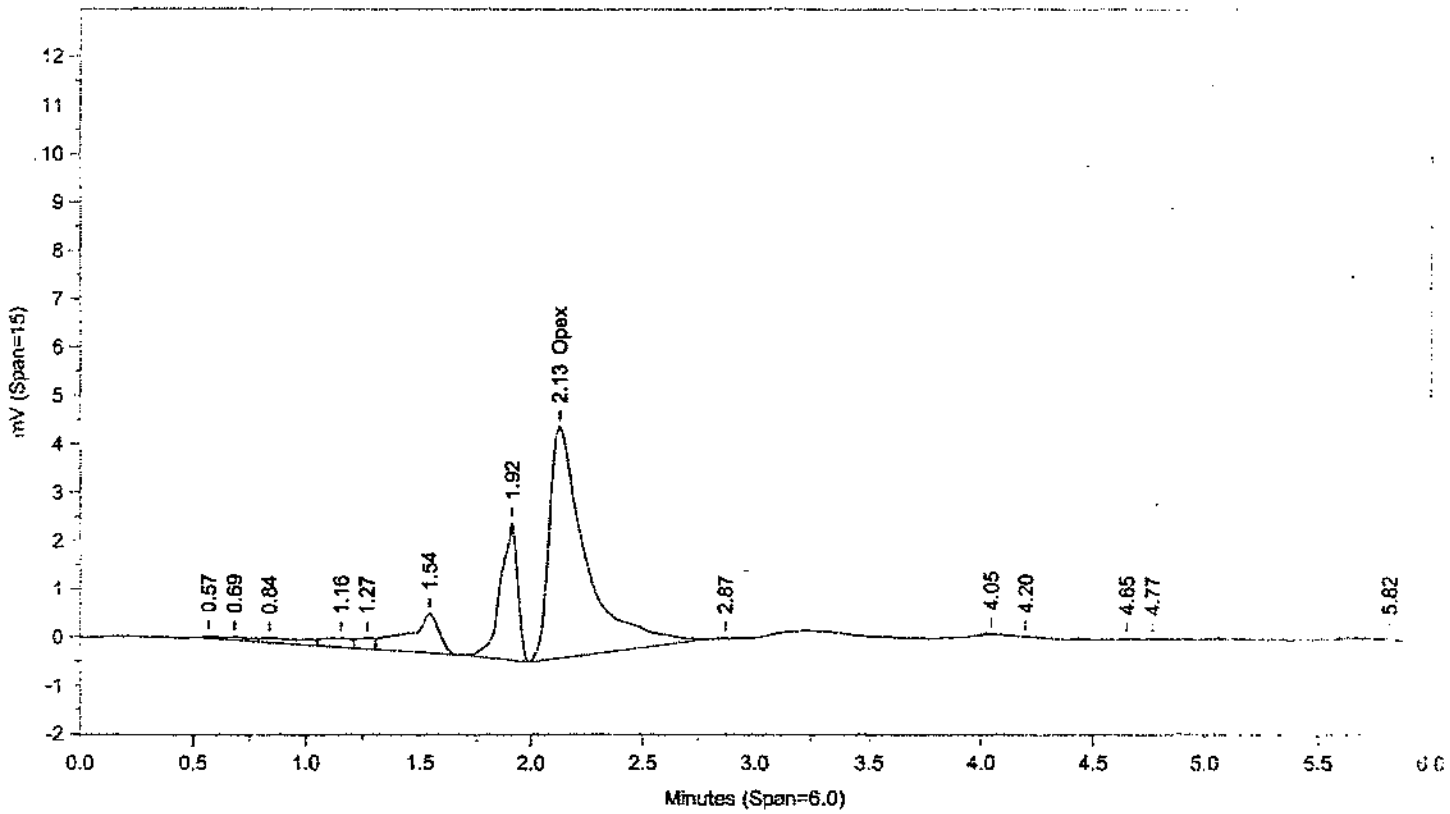
	Samplename	Code	ID	FileName	Method		Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	MISC	AA	1x11161.01R		OPEX.MET	1	1	1	0	1116099999	
2	CONDITIONER	MISC	AA	1x11161.02R		OPEX.MET	1	1	1	0	1116099999	
3	CONDITIONER	MISC	AA	1x11161.03R		OPEX.MET	1	1	1	0	1116099999	
4	OPEX51124C	ICAL	AA	1x11161.04R		OPEX.MET	1	1	1	5	1116099999	
5	OPEX41124C	ICAL	AA	1x11161.05R		OPEX.MET	1	1	1	4	1116099999	
6	OPEX31124C	ICAL	AA	1x11161.06R		OPEX.MET	1	1	1	3	1116099999	
7	OPEX21124C	ICAL	AA	1x11161.07R		OPEX.MET	1	1	1	2	1116099999	
8	OPEX11124C	ICAL	AA	1x11161.08R		OPEX.MET	1	1	1	1	1116099999	
9	MDOXX1124C	ICAL	AA	1x11161.09R		OPEX.MET	1	1	1	0	1116099999	
10	BLANKA 6/10/11	BLK	AA	1x11161.10R		OPEX.MET	10	10	1	0	111610022A	02726
11	LCSA 6/10/11	LCS	AA	1x11161.11R		OPEX.MET	10	10	1	0	111610022A	02726
12	LCSDA 6/10/11	LCSD	AA	1x11161.12R		OPEX.MET	10	10	1	0	111610022A	02726
13	6308055	T	AA	1x11161.13R		OPEX.MET	10	10	1	0	111610022A	02726
14	6308056MS	MS	AA	1x11161.14R		OPEX.MET	10	10	1	0	111610022A	02726
15	6308057MSD	MSD	AA	1x11161.15R		OPEX.MET	10	10	1	0	111610022A	02726
16	6308058	T	AA	1x11161.16R		OPEX.MET	10	10	1	0	111610022A	02726
17	6308059	T	AA	1x11161.17R		OPEX.MET	10	10	1	0	111610022A	02726
18	6308074	T	AA	1x11161.18R		OPEX.MET	10	10	1	0	111610022A	02726
19	OPEX31124C	CCAL	DT	1x11161.19R		OPEX.MET	1	1	1	0	1116099999	
20	6308075	T	AA	1x11161.20R		OPEX.MET	10	10	1	0	111610022A	02726
21	6308076	T	AA	1x11161.21R		OPEX.MET	10	10	1	0	111610022A	02726
22	6309550	T	AA	1x11161.22R		OPEX.MET	10	10	1	0	111610022A	02726
23	6309553	T	AA	1x11161.23R		OPEX.MET	10	10	1	0	111610022A	02726
24	6309554	T	AA	1x11161.24R		OPEX.MET	10	10	1	0	111610022A	02726
25	6309555	T	AA	1x11161.25R		OPEX.MET	10	10	1	0	111610022A	02726
26	6310720	T	AA	1x11161.26R		OPEX.MET	10	10	1	0	111610022A	02726
27	6310721	T	AA	1x11161.27R		OPEX.MET	10	10	1	0	111610022A	02726
28	6310722	T	AA	1x11161.28R		OPEX.MET	10	10	1	0	111610022A	02726
29	6310723	T	AA	1x11161.29R		OPEX.MET	10	10	1	0	111610022A	02726
30	OPEX31124C	CCAL	DU	1x11161.30R		OPEX.MET	1	1	1	0	1116099999	
31	6310724	T	AA	1x11161.31R		OPEX.MET	10	10	1	0	111610022A	02726
32	OPEX31124C	CCAL	DV	1x11161.32R		OPEX.MET	1	1	1	0	1116099999	

OLM78 0149

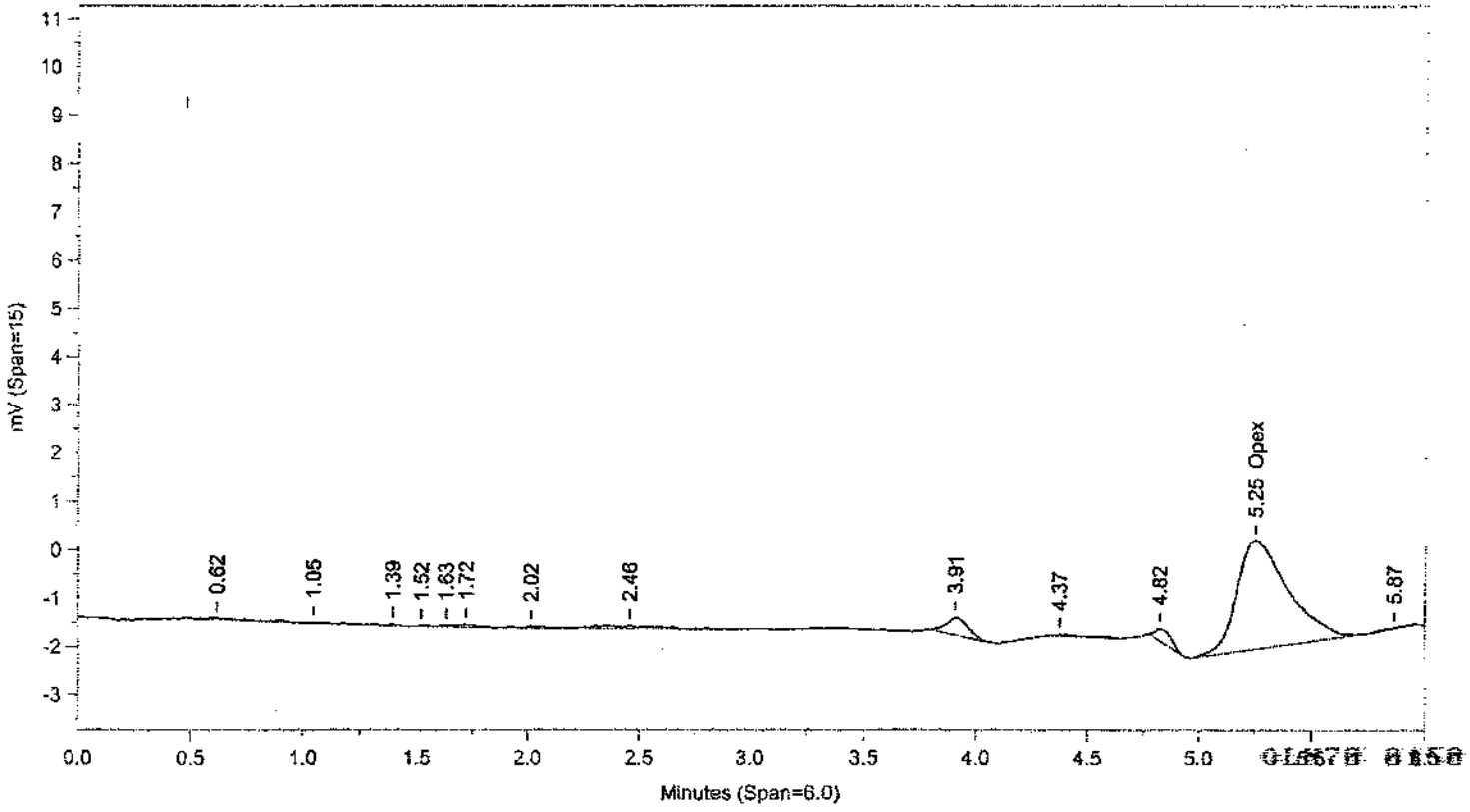
Set-up by: _____ Date: 6/10/11

6/10/2011

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.04R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:28:20 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:28:20 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Area Reject: 100
Calibration Type: External
Quantitation: Height

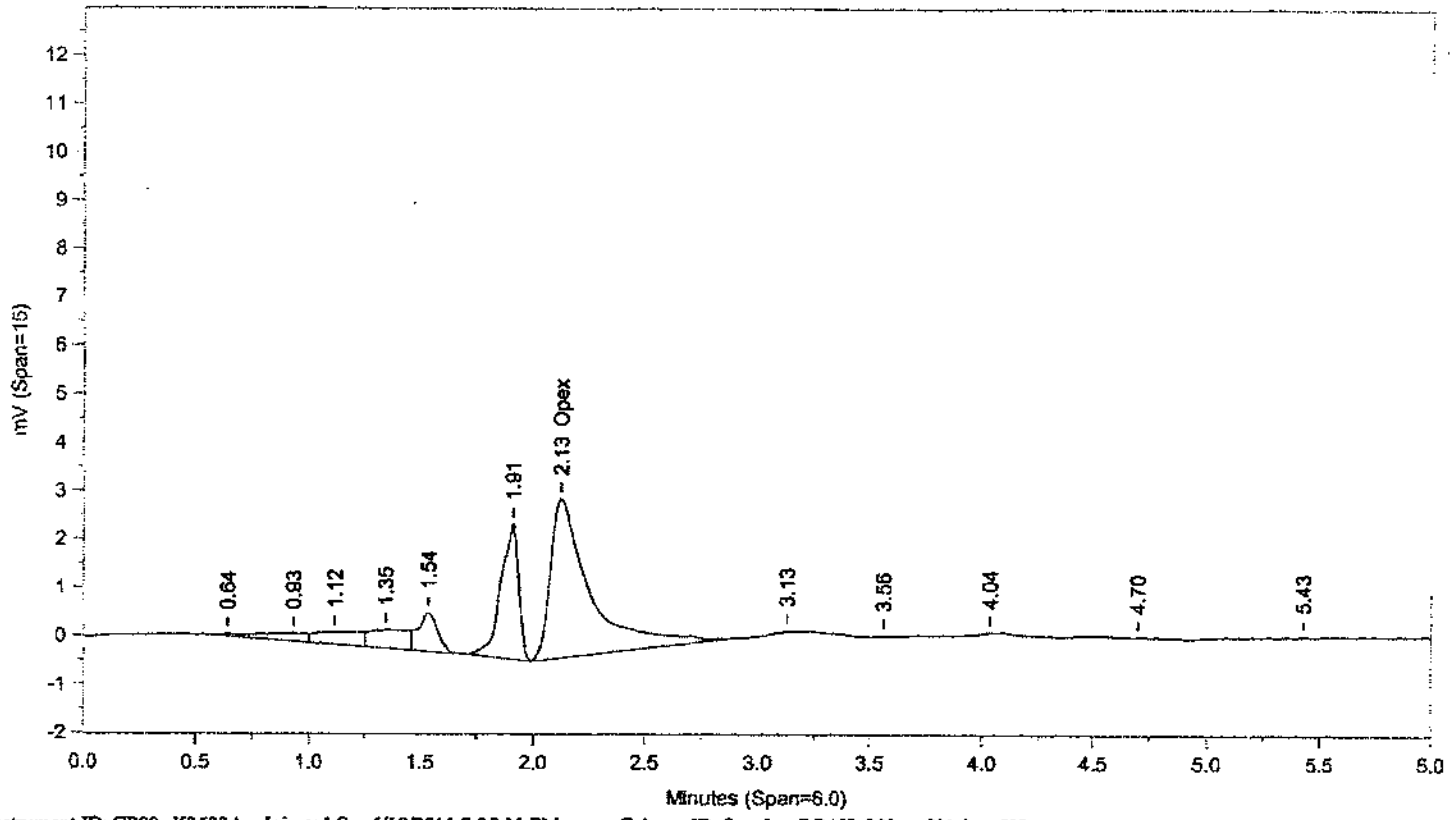
Detector B Parameters:
Threshold: -4 Width: 0.1
Area Reject: 100
Calibration Type: External
Quantiation: Height

Sample Weight: 1
Dilution Factor: 1
Analyst: 1566

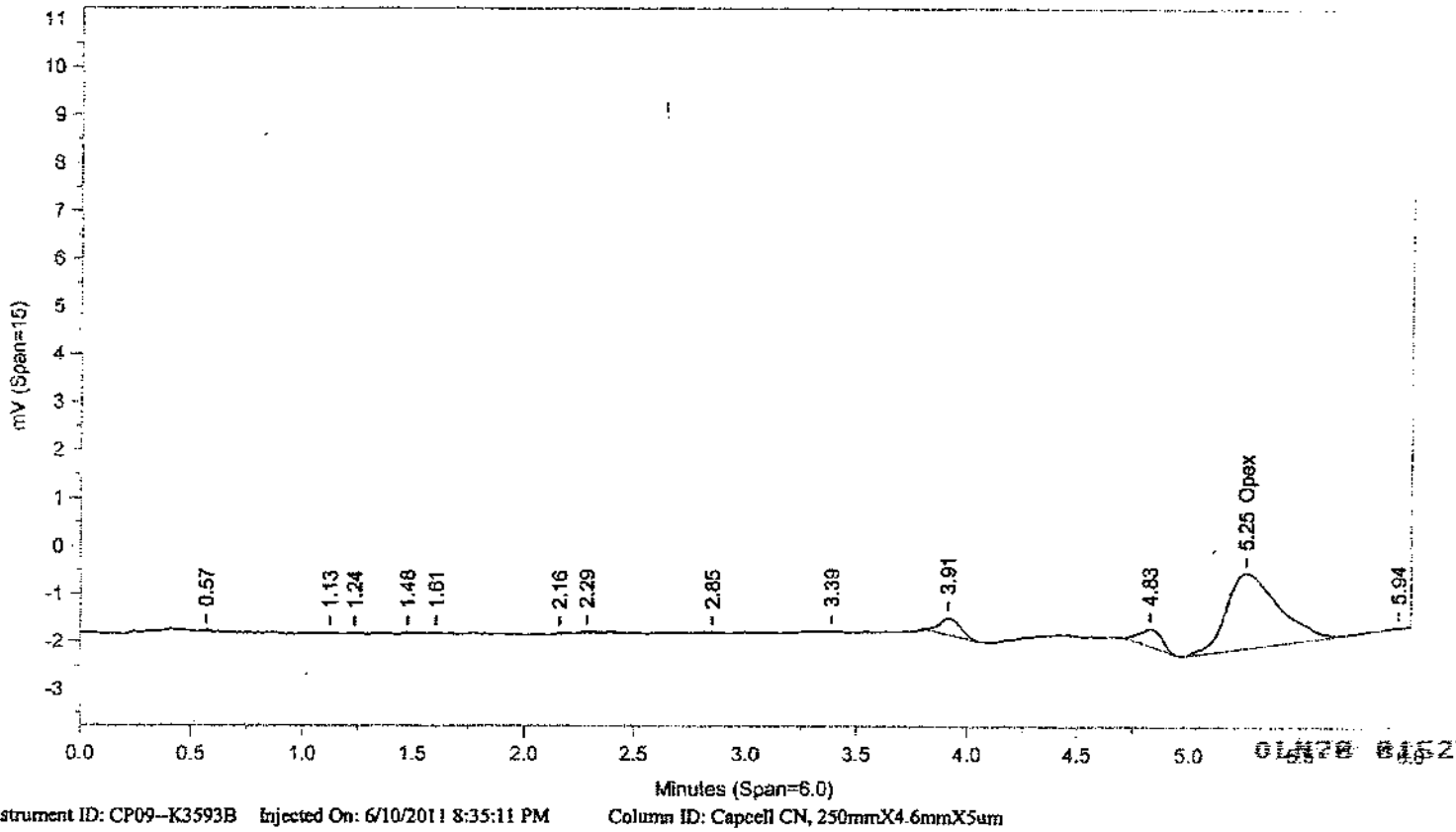
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.131	4793	1110.619	Opex	5.248	2232	1102.247	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.04A
Area File: C:\CPWIN\DATA1\1X11161B.04A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:46:14 PM
File Reported On: 6/14/2011 at 6:46:27 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.05R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:35:11 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:35:11 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

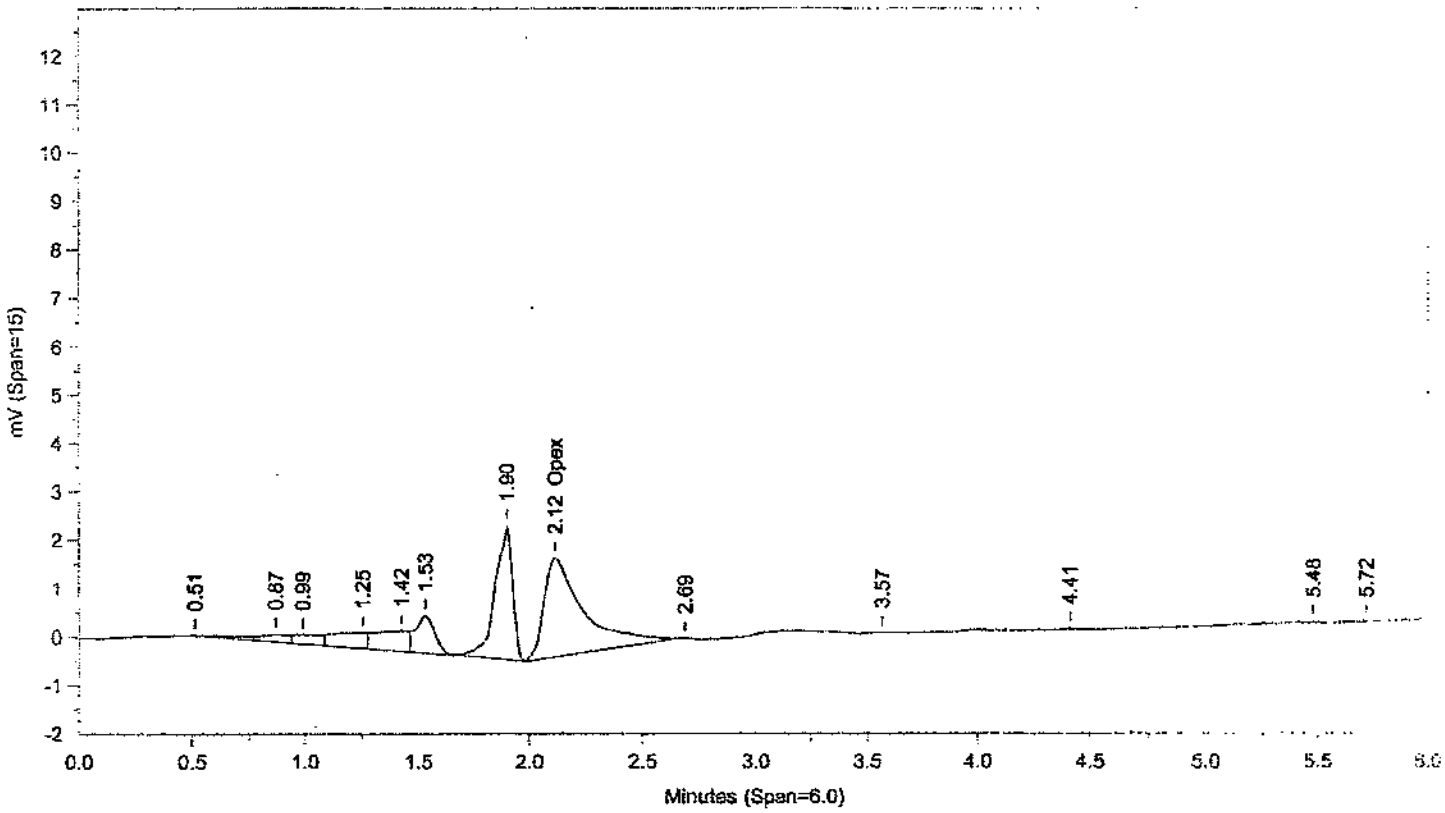
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

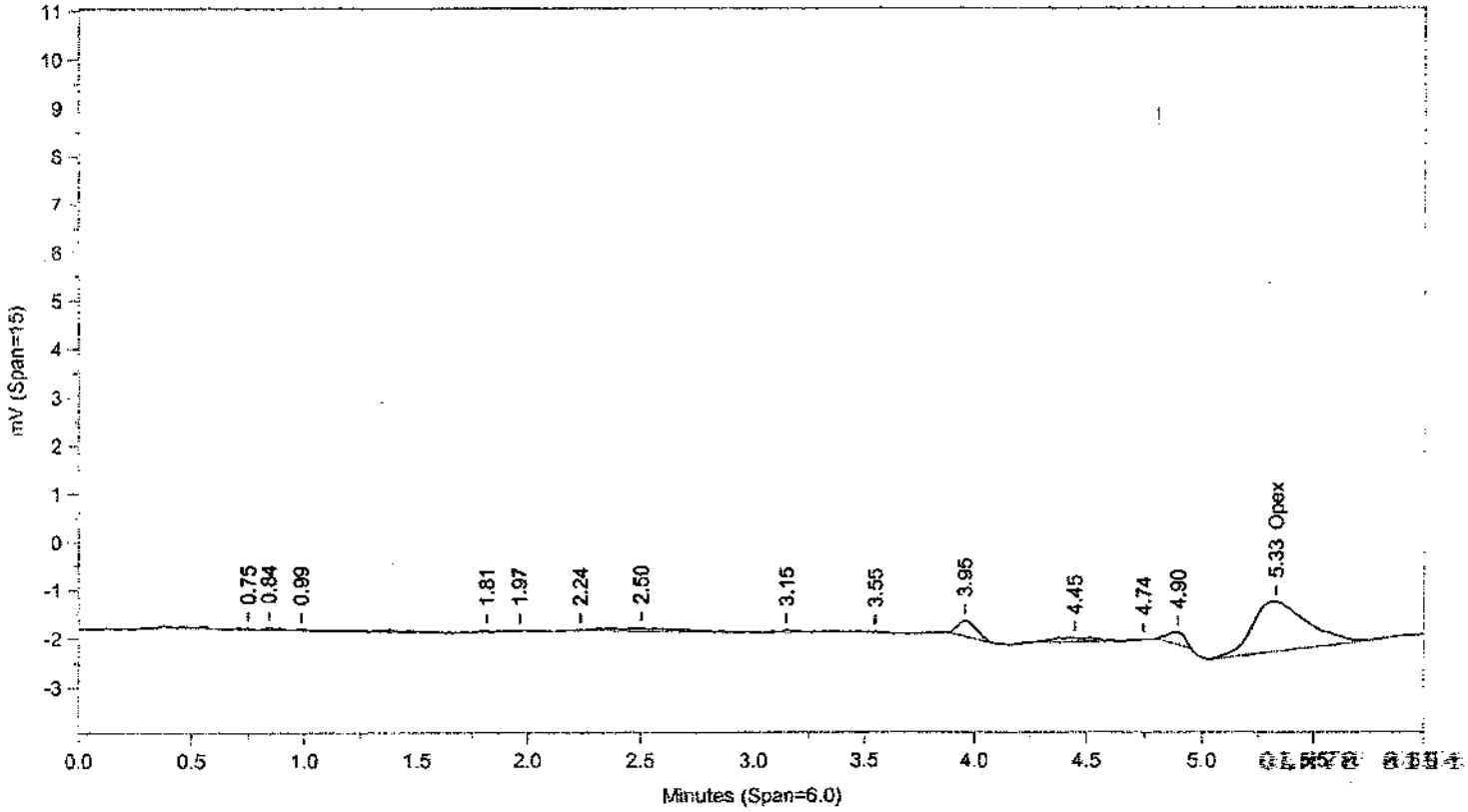
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.126	3302	740.489	Opex	5.254	1576	746.657	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.05A
Area File: C:\CPWIN\DATA1\1X11161B.05A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:46:40 PM
File Reported On: 6/14/2011 at 6:46:52 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.06R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:42:02 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:42:02 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

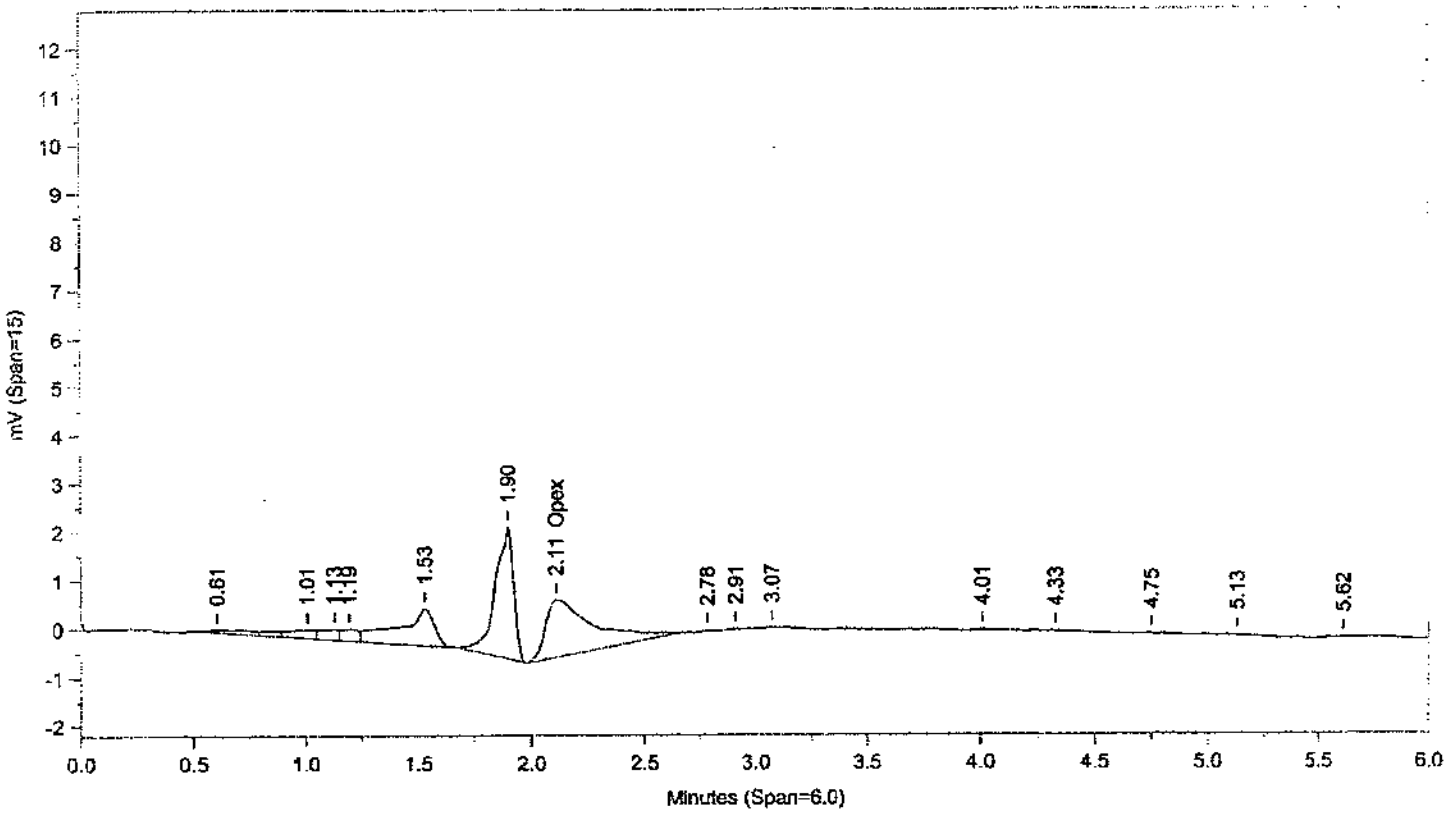
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

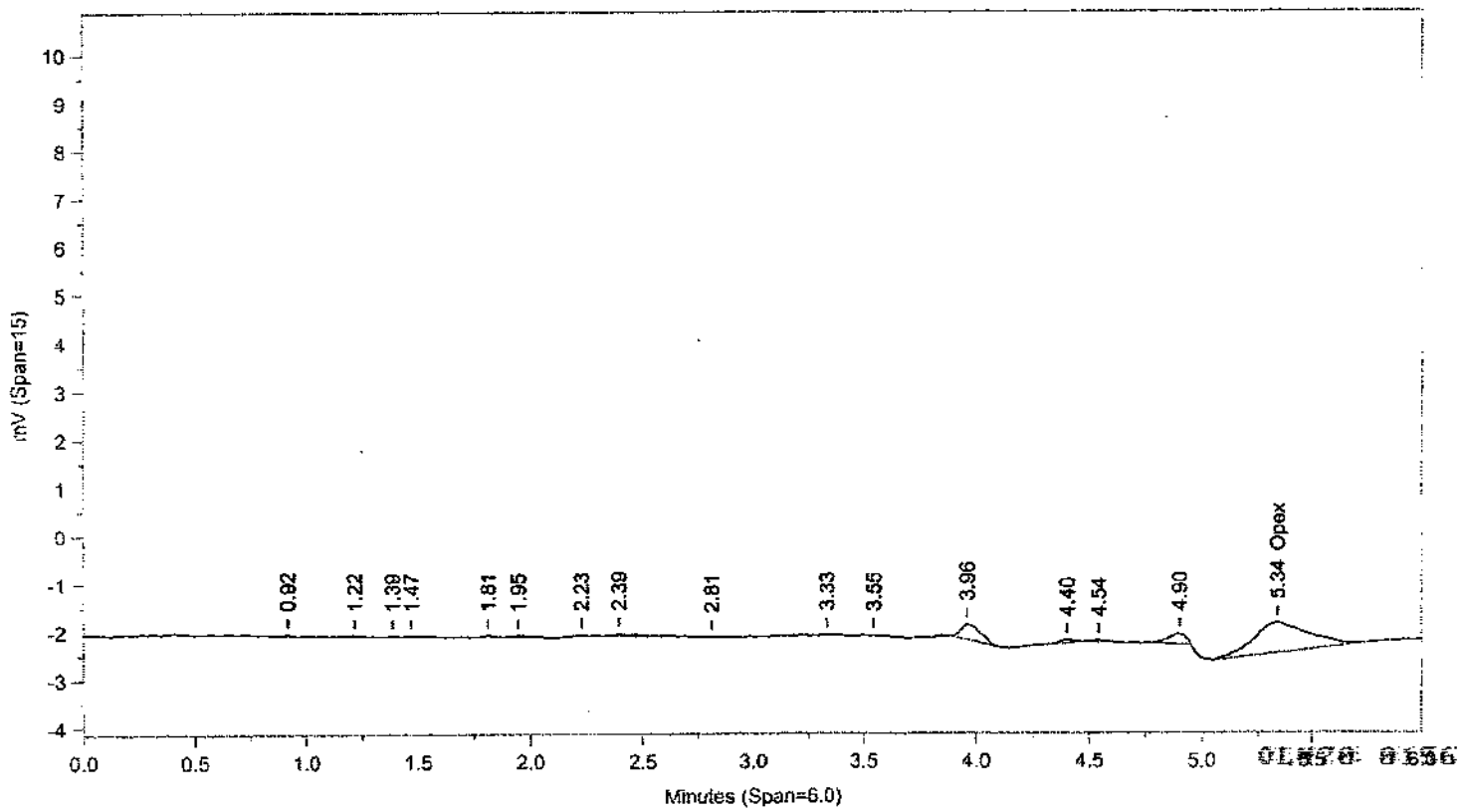
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.117	2039	425.197	Opex	5.328	1034	452.725	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.06A
Area File: C:\CPWIN\DATA1\1X11161B.06A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:47:06 PM
File Reported On: 6/14/2011 at 6:47:17 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.07R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:48:54 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:48:54 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

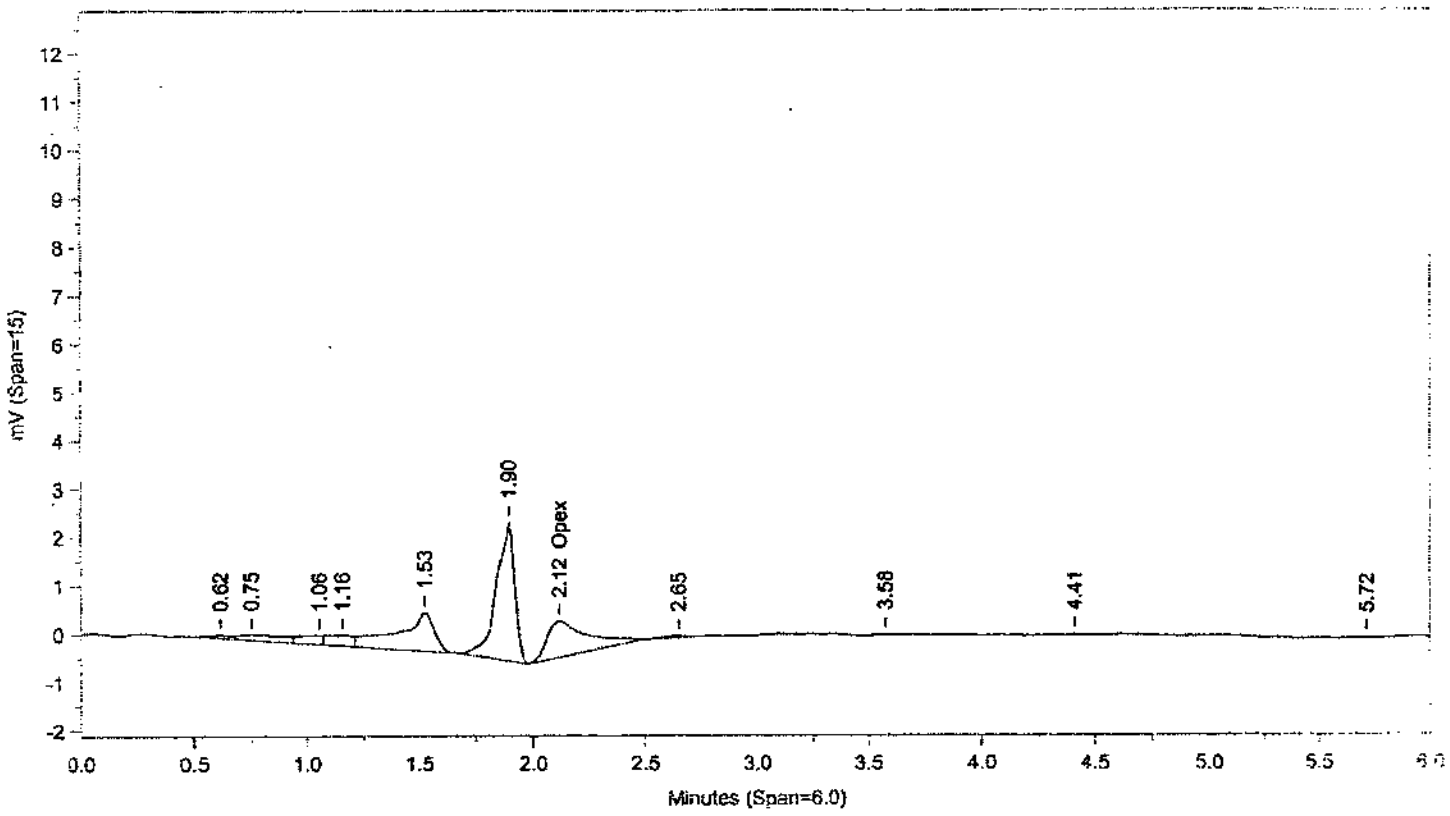
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

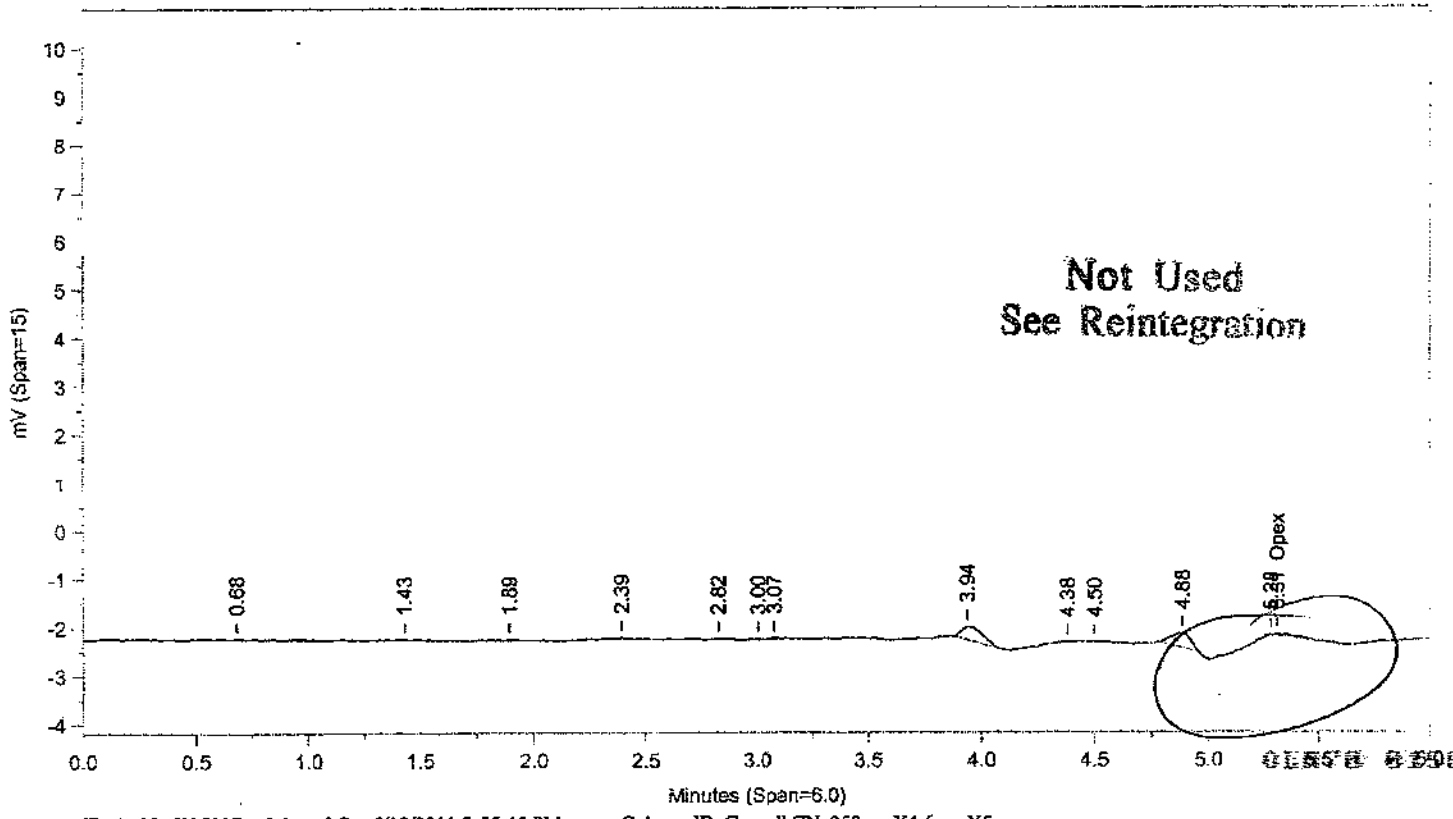
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.109	1179	211.87	Opex	5.343	619	227.877	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.07A
Area File: C:\CPWIN\DATA1\1X11161B.07A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:47:30 PM
File Reported On: 6/14/2011 at 6:47:42 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\IX11161.08R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:55:45 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:55:45 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

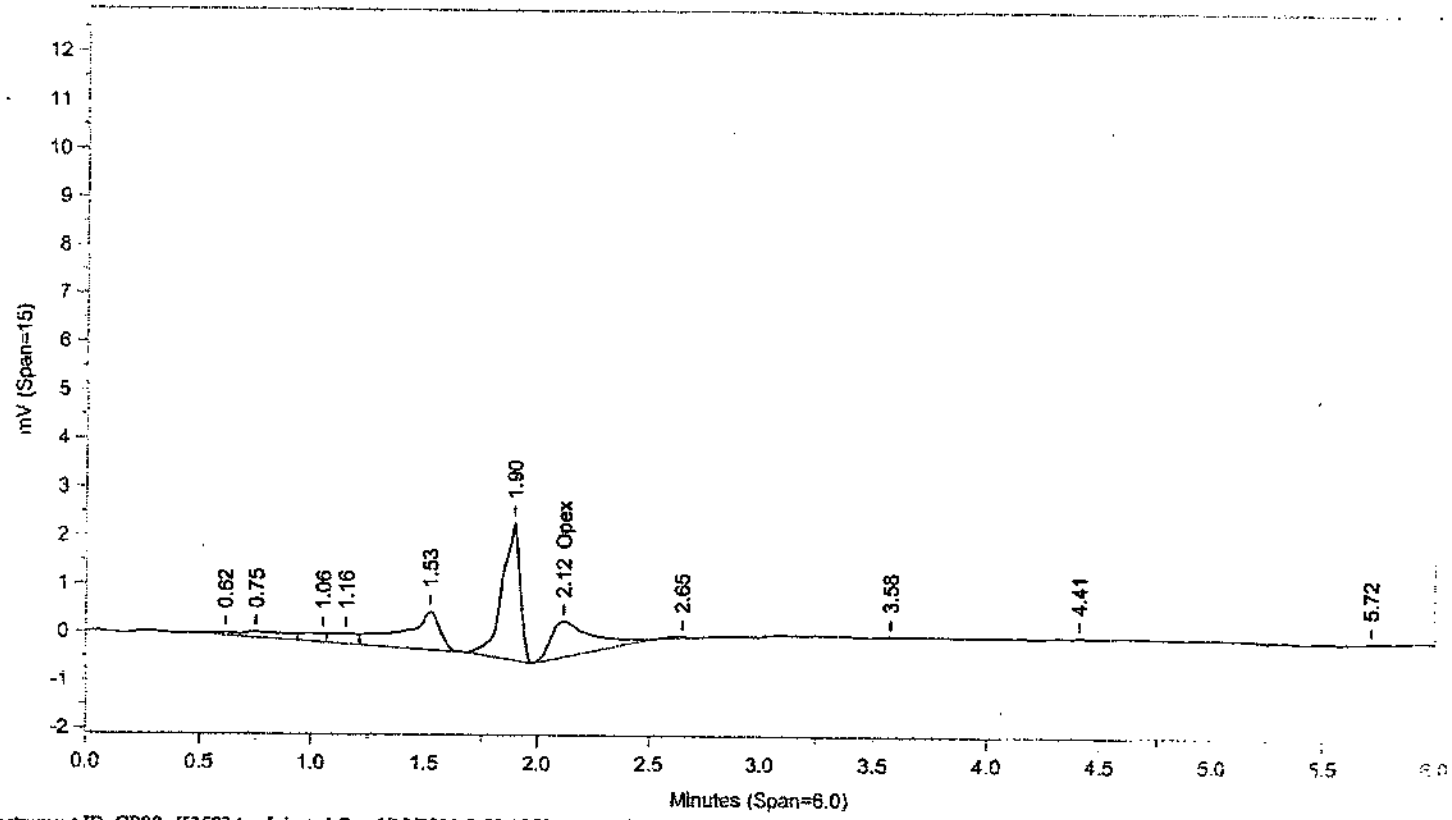
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.12	744	107.925	Opex	5.311	35	-89.016	Opex

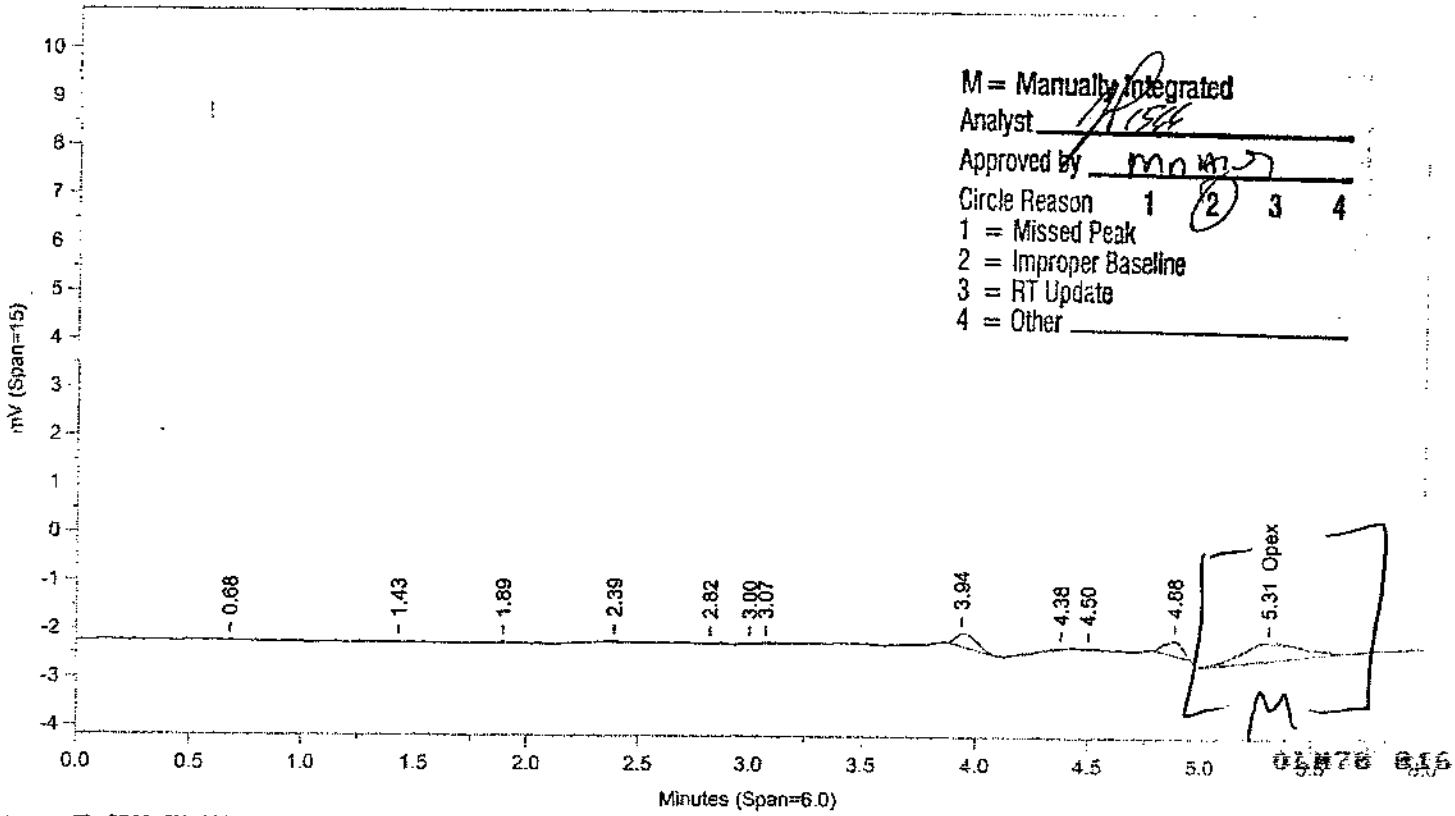
Files:
Area File: C:\CPWIN\DATA1\1X11161.08A
Area File: C:\CPWIN\DATA1\1X11161B.08A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:47:56 PM
File Reported On: 6/14/2011 at 6:48:06 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.08R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 8:55:45 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



M = Manually Integrated
Analyst
Approved by
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Instrument ID: CP09--K3593B Injected On: 6/10/2011 8:55:45 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantitation: Height

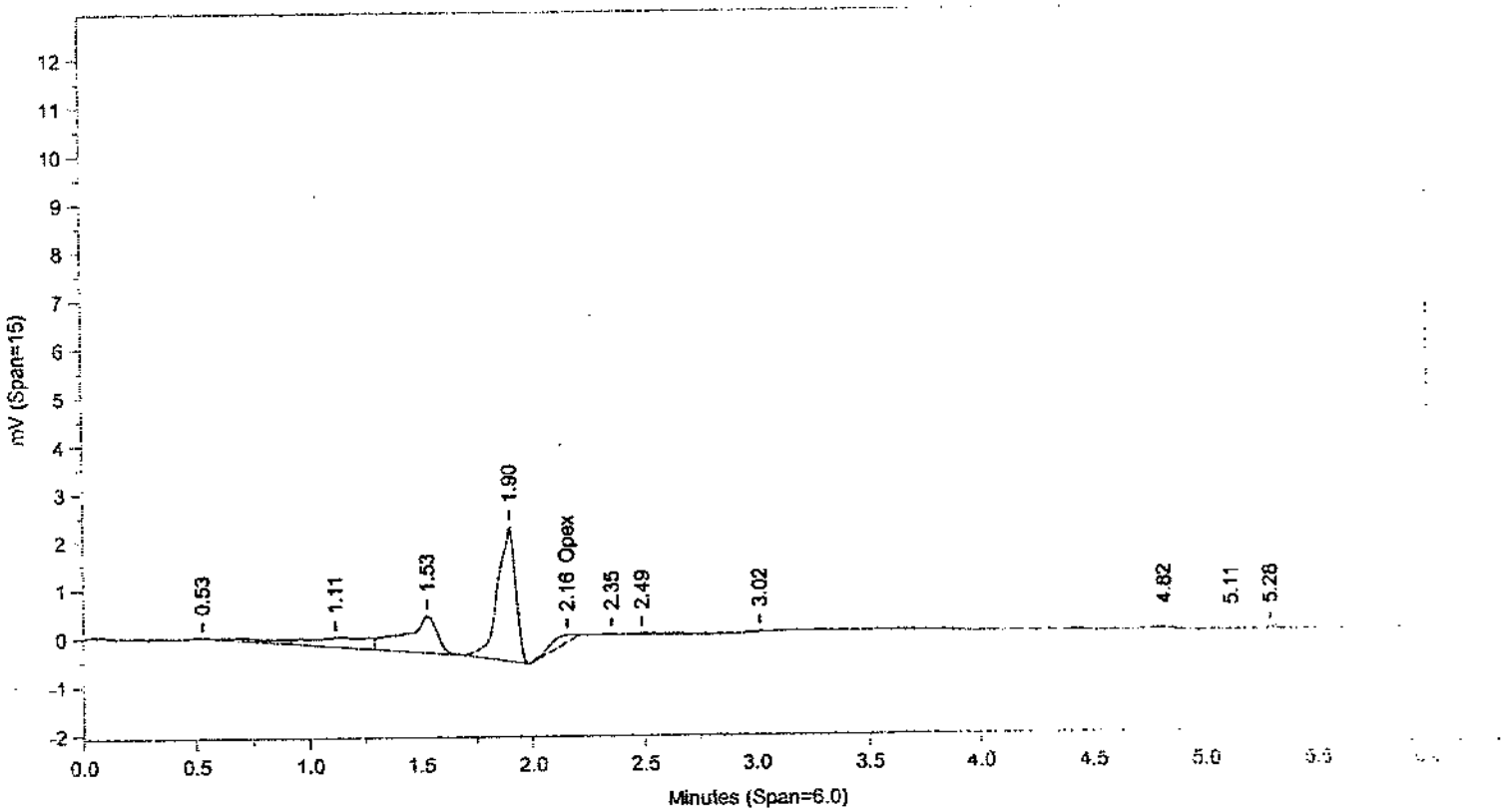
Detector B Parameters:
Threshold: -4 Width: 0.1 Area Reject: 100
Calibration Type: External Quantiation: Height

Sample Weight: 1 Dilution Factor: 1
Analyst: 1566

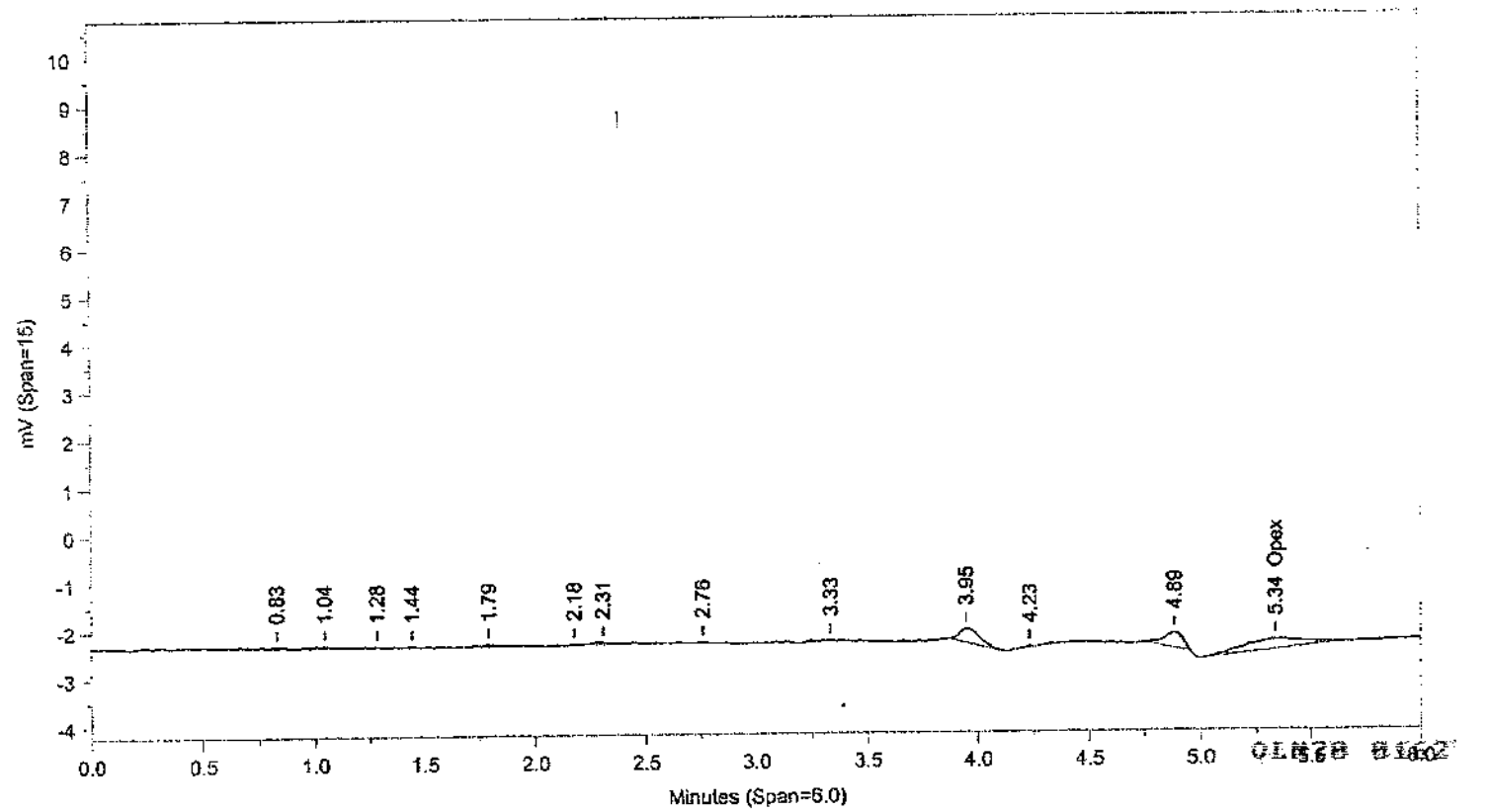
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.12	744	115.749	Opex	5.311	378	175.509	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:51:02 PM
File Reported On: 6/14/2011 at 6:51:02 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.09R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 9:02:37 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 9:02:37 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

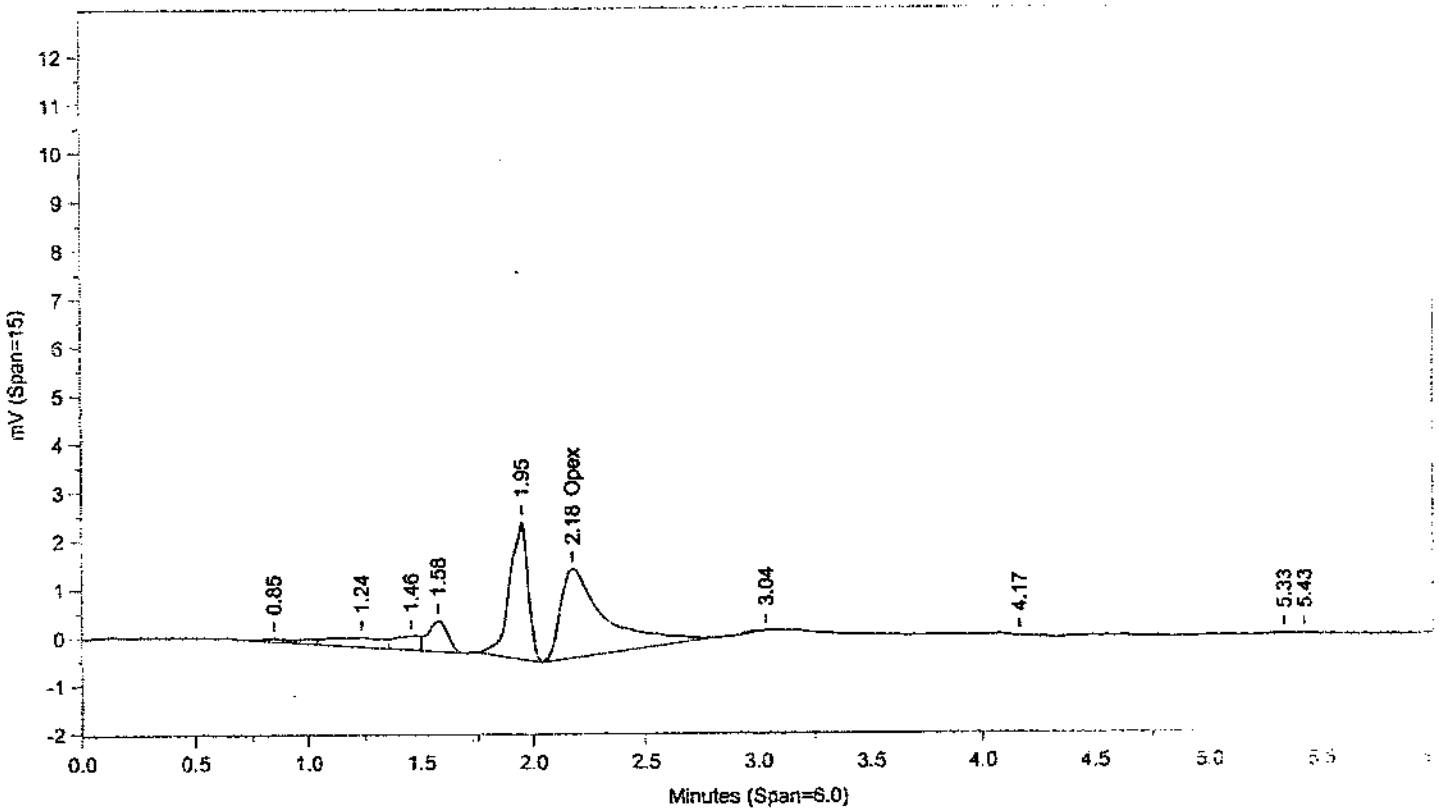
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

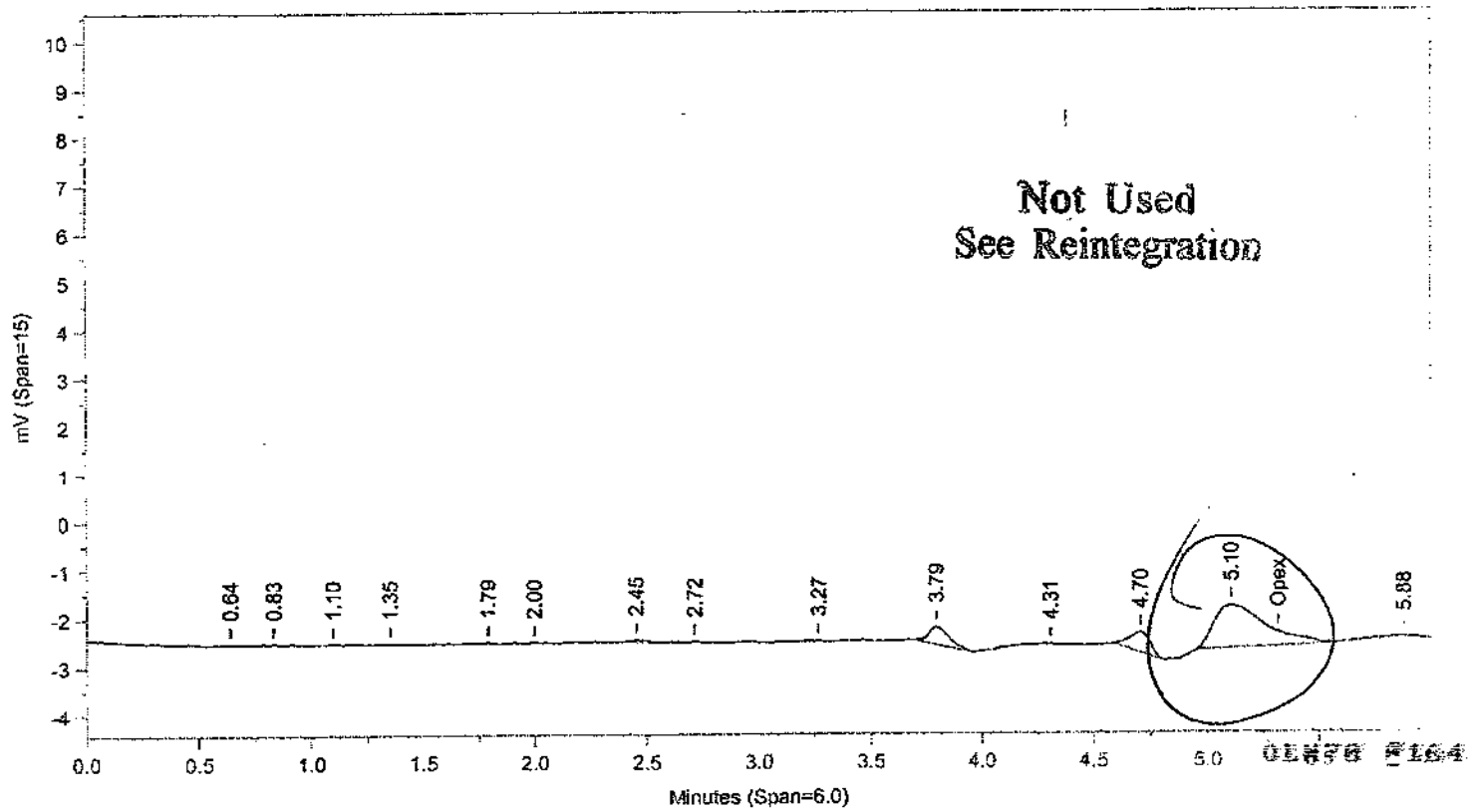
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.156	154	-29.234	Opex	5.336	212	7.276	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.09A
Area File: C:\CPWIN\DATA1\1X11161B.09A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:53:22 PM
File Reported On: 6/14/2011 at 6:53:30 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.19R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:11:13 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:11:13 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

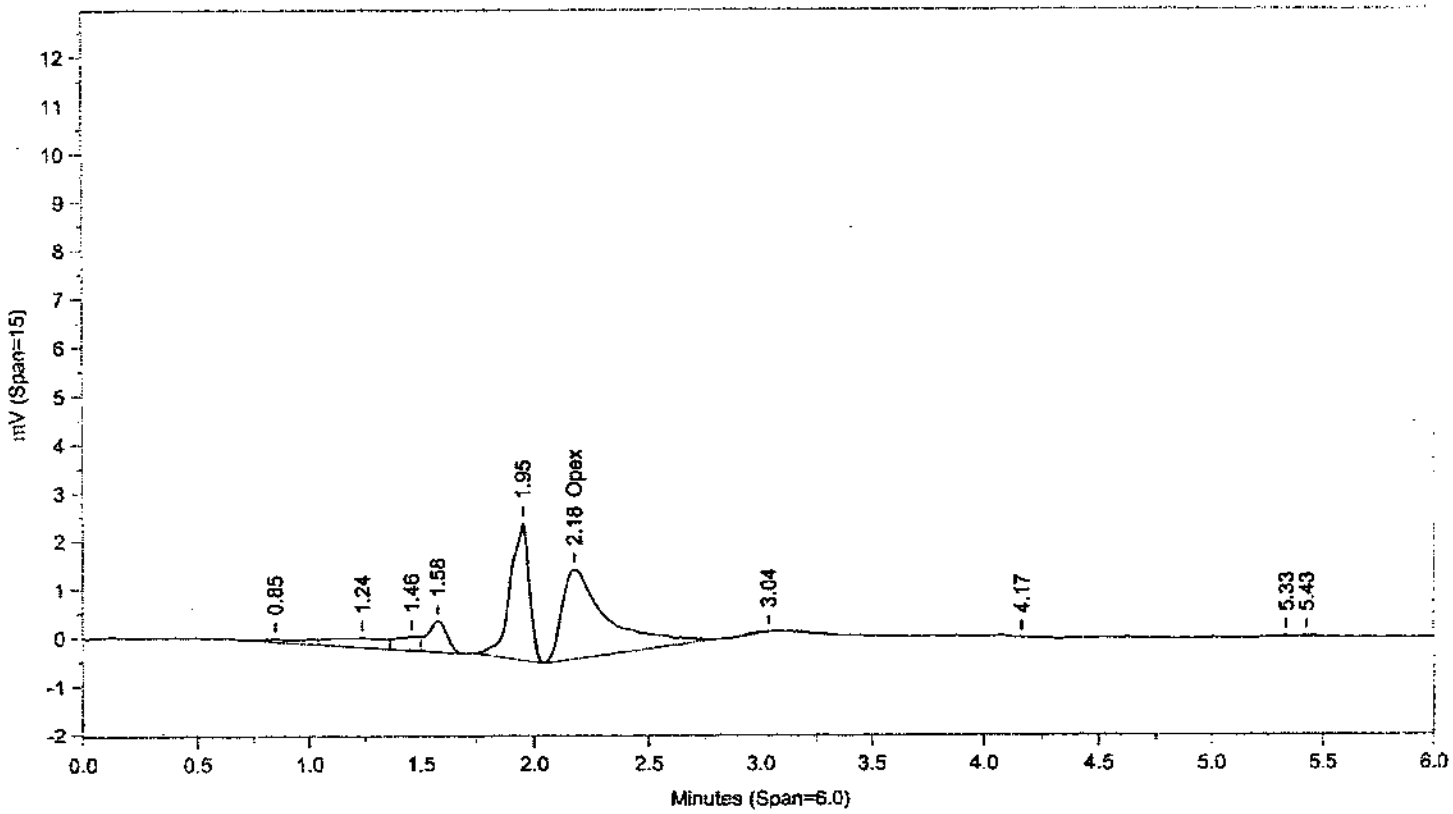
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.18	1856	388.854	Opex			0	Opex

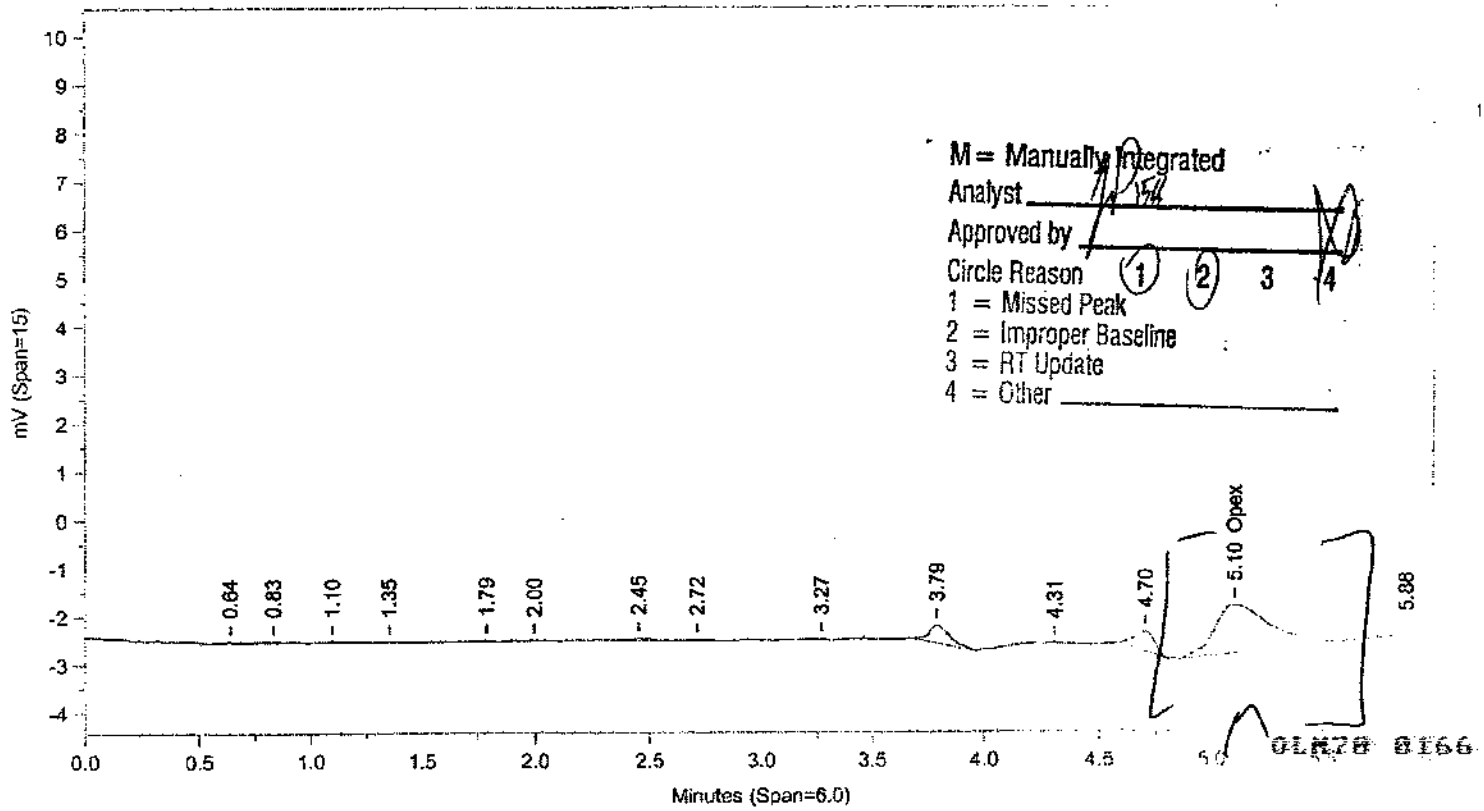
Files:
Area File: C:\CPWIN\DATA1\1X11161.19A
Area File: C:\CPWIN\DATA1\1X11161B.19A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:56:42 PM
File Reported On: 6/14/2011 at 6:56:51 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.19R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 10:11:13 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



M = Manually Integrated
Analyst
Approved by
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Instrument ID: CP09--K3593B Injected On: 6/10/2011 10:11:13 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

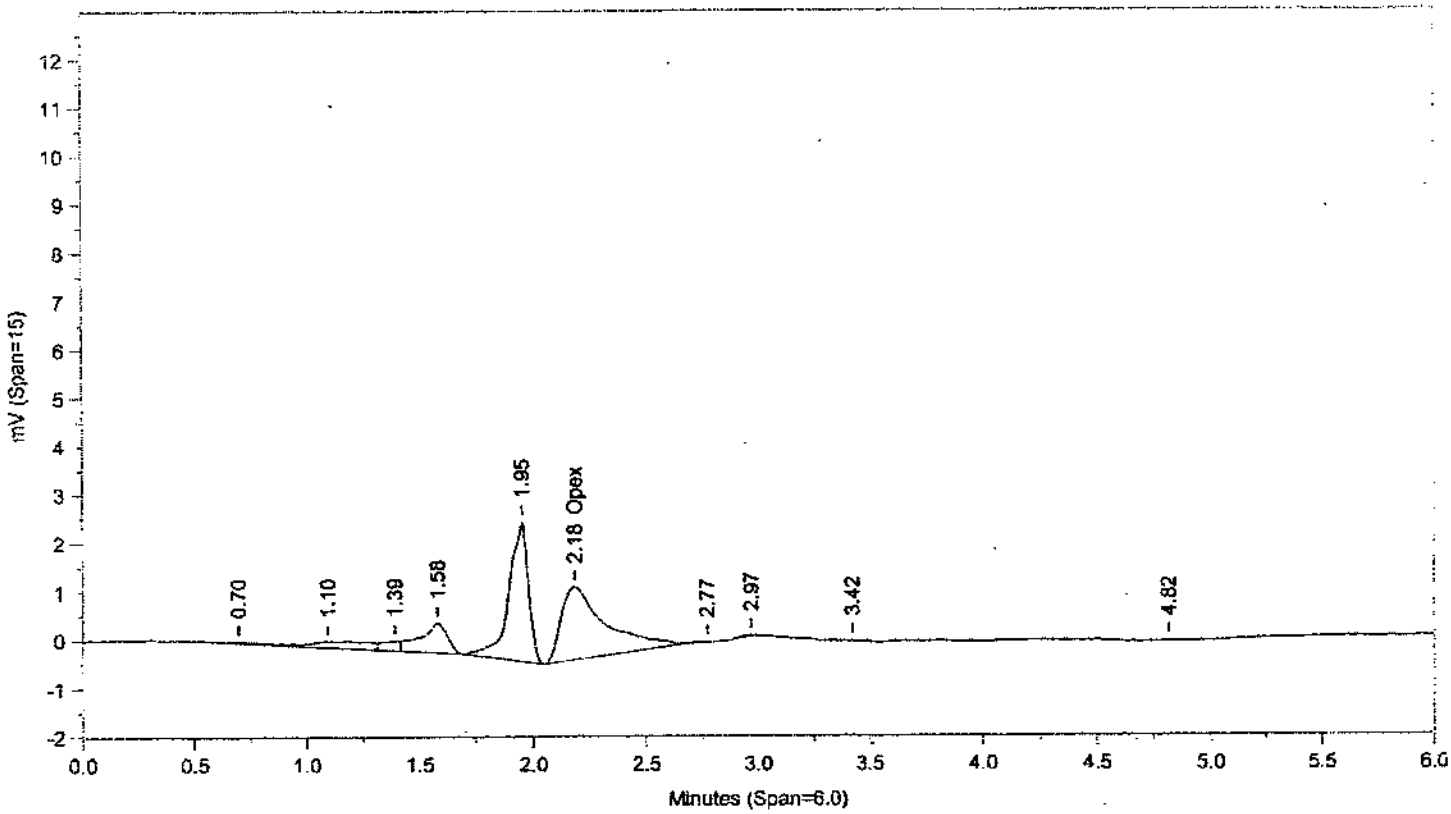
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

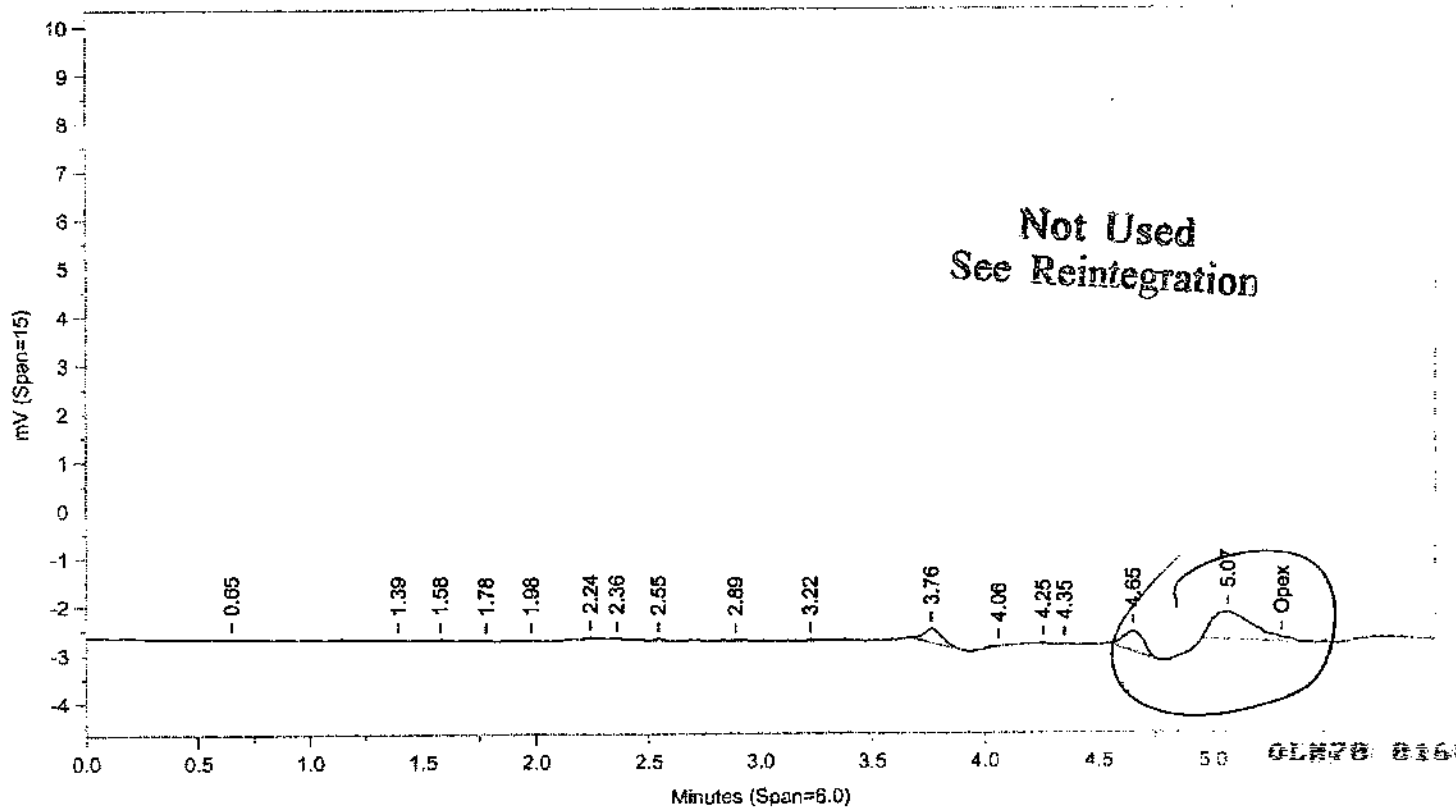
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.18	1856	388.854	Opex	5.102	1003	435.977	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 7:06:06 PM
File Reported On: 6/14/2011 at 7:06:04 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.30R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 11:26:46 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 11:26:46 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

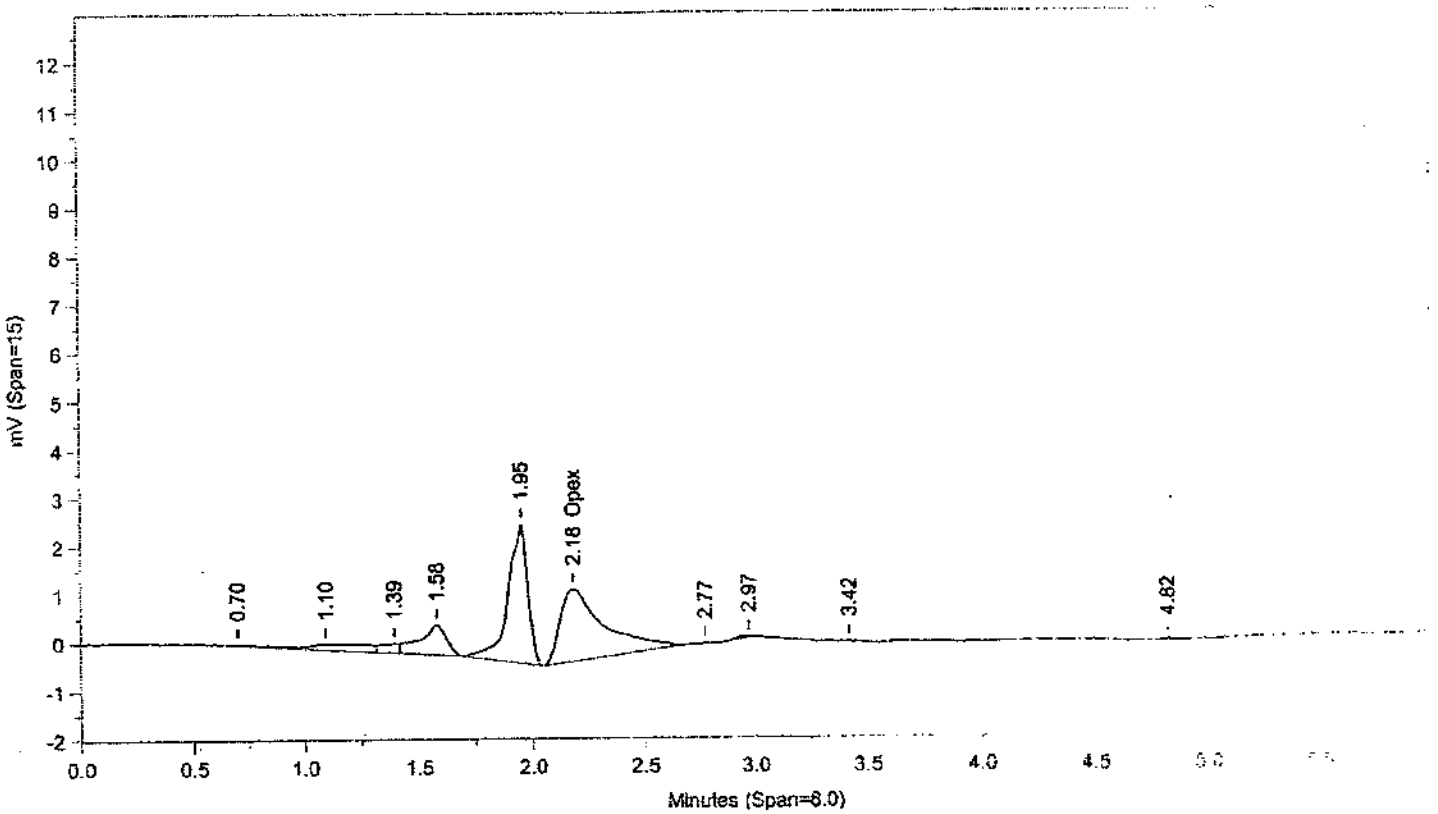
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.184	1497	300.555	Opex			0	Opex

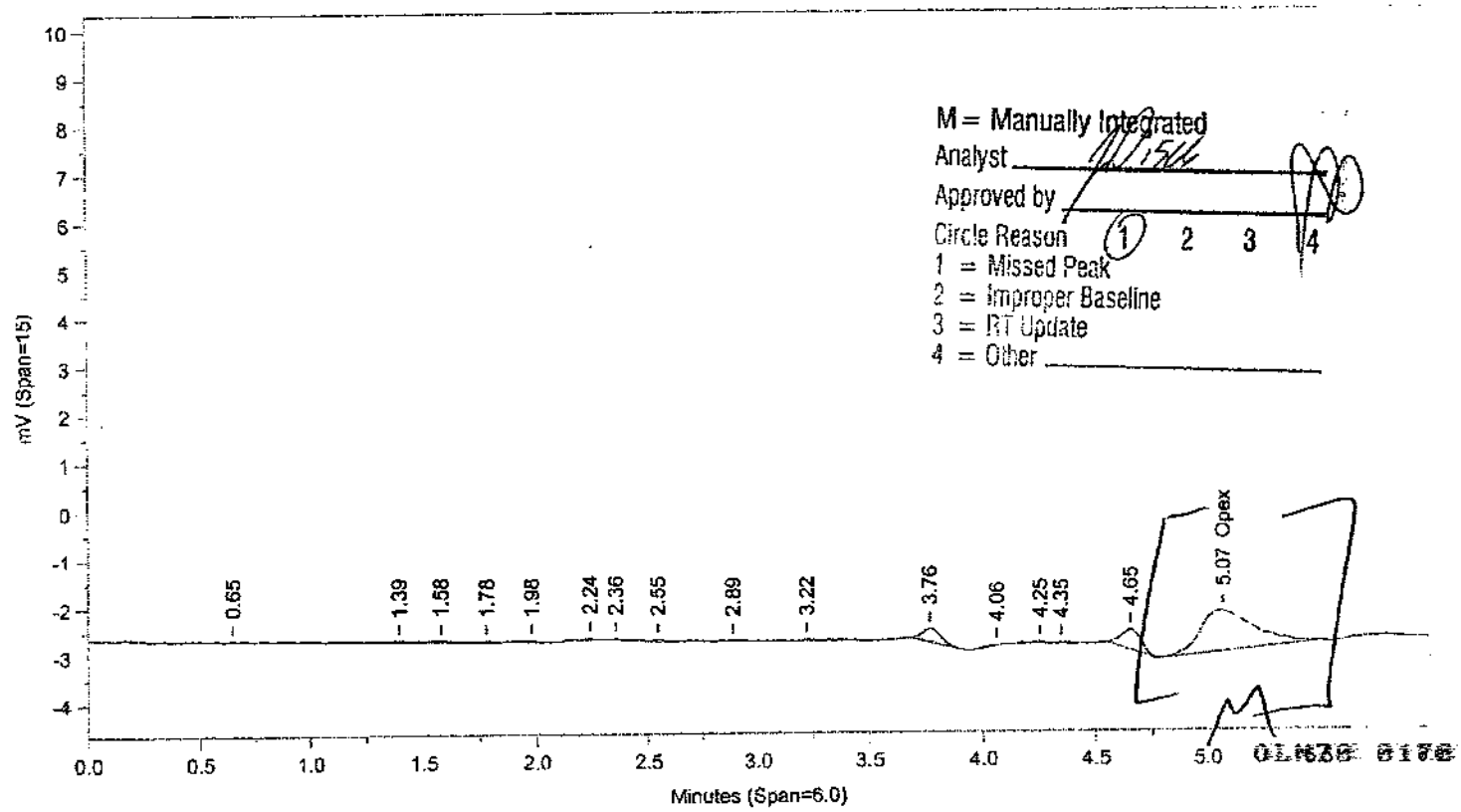
Files:
Area File: C:\CPWIN\DATA1\1X11161.30A
Area File: C:\CPWIN\DATA1\1X11161B.30A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 7:00:22 PM
File Reported On: 6/14/2011 at 7:00:31 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.30R



Instrument ID: CP09–K3593A Injected On: 6/10/2011 11:26:46 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



M = Manually Integrated
Analyst
Approved by
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Instrument ID: CP09–K3593B Injected On: 6/10/2011 11:26:46 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.184	1497	300.555	Opex	5.07	847	351.559	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 7:09:08 PM
File Reported On: 6/14/2011 at 7:09:07 PM

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\cp9\C-Drive\CPWIN\data1\1X11166.seq

Chromatography Directory: \\cp9\C-Drive\CPWIN\data1

Method Directory: \\cp9\C-Drive\CPWIN\data1

Number of Entries: 22

	Samplename	Code	ID	FileName	Method		Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	MISC	AA	1X11166.01R		OPEX.MET	1	1	1	0	1116599999	
2	CONDITIONER	MISC	AA	1X11166.02R		OPEX.MET	1	1	1	0	1116599999	
3	CONDITIONER	MISC	AA	1X11166.03R		OPEX.MET	1	1	1	0	1116599999	
4	OPEX51124C	ICAL	AA	1X11166.04R		OPEX.MET	1	1	1	5	1116599999	
5	OPEX41124C	ICAL	AA	1X11166.05R		OPEX.MET	1	1	1	4	1116599999	
6	OPEX31124C	ICAL	AA	1X11166.06R		OPEX.MET	1	1	1	3	1116599999	
7	OPEX21124C	ICAL	AA	1X11166.07R		OPEX.MET	1	1	1	2	1116599999	
8	OPEX11124C	ICAL	AA	1X11166.08R		OPEX.MET	1	1	1	1	1116599999	
9	MDOXX1124C	ICAL	AA	1X11166.09R		OPEX.MET	1	1	1	0	1116599999	
10	6308075 RI	T	AA	1X11166.10R		OPEX.MET	10	10	1	0	111610022A	02726
11	6308076 RI	T	AA	1X11166.11R		OPEX.MET	10	10	1	0	111610022A	02726
12	6309550 RI	T	AA	1X11166.12R		OPEX.MET	10	10	1	0	111610022A	02726
13	6309553 RI	T	AA	1X11166.13R		OPEX.MET	10	10	1	0	111610022A	02726
14	6309554 RI	T	AA	1X11166.14R		OPEX.MET	10	10	1	0	111610022A	02726
15	6309555 RI	T	AA	1X11166.15R		OPEX.MET	10	10	1	0	111610022A	02726
16	6310720 RI	T	AA	1X11166.16R		OPEX.MET	10	10	1	0	111610022A	02726
17	6310721 RI	T	AA	1X11166.17R		OPEX.MET	10	10	1	0	111610022A	02726
18	6310722 RI	T	AA	1X11166.18R		OPEX.MET	10	10	1	0	111610022A	02726
19	6310723 RI	T	AA	1X11166.19R		OPEX.MET	10	10	1	0	111610022A	02726
20	OPEX31124C	CCAL	DZ	1X11166.20R		OPEX.MET	1	1	1	0	1116599999	
21	6310724 RI	T	AA	1X11166.21R		OPEX.MET	10	10	1	0	111610022A	02726
22	OPEX31124C	CCAL	EA	1X11166.22R		OPEX.MET	1	1	1	0	1116599999	

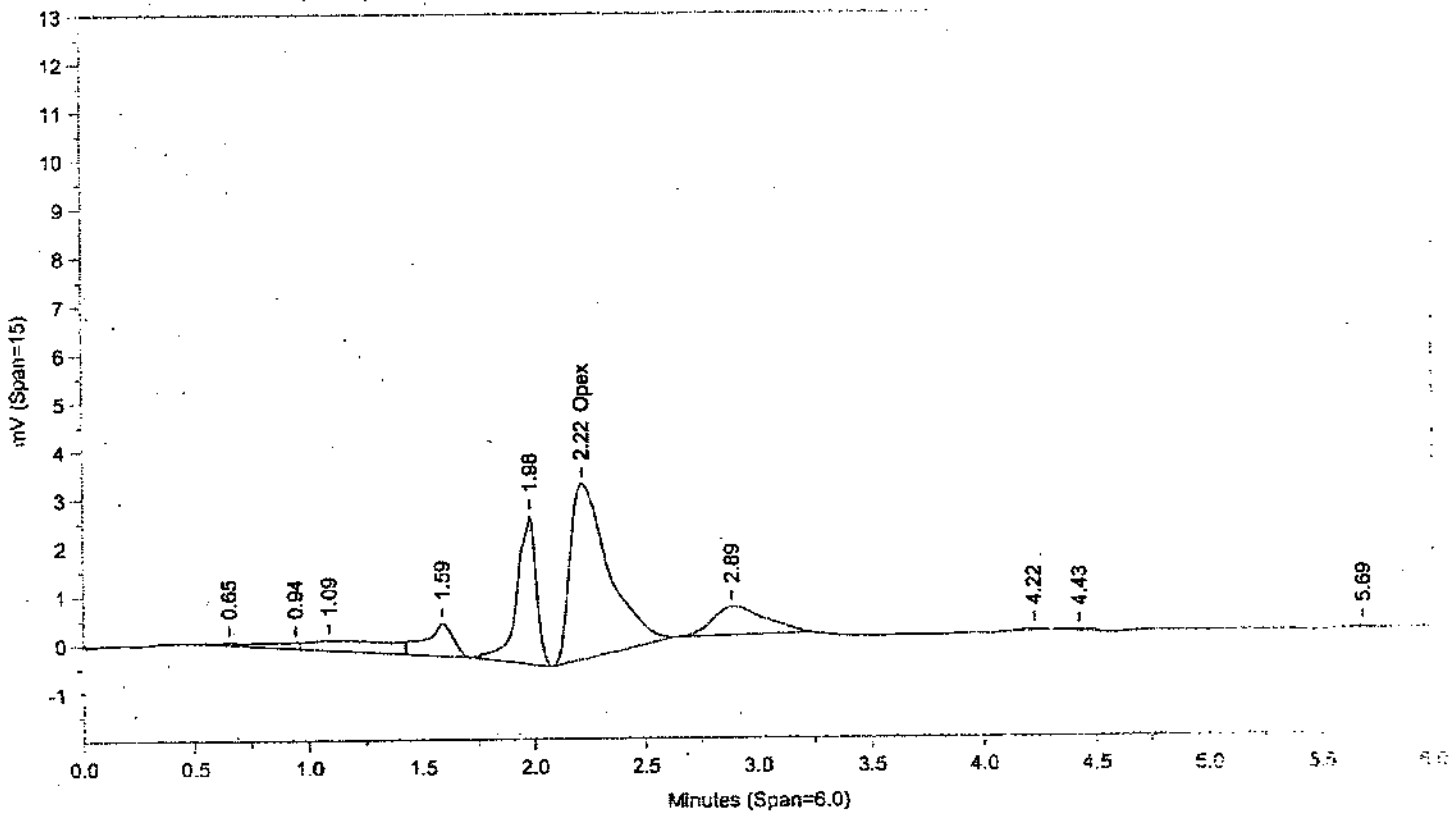
OLM20 8172

Set-up by: _____ Date: 6/15/11

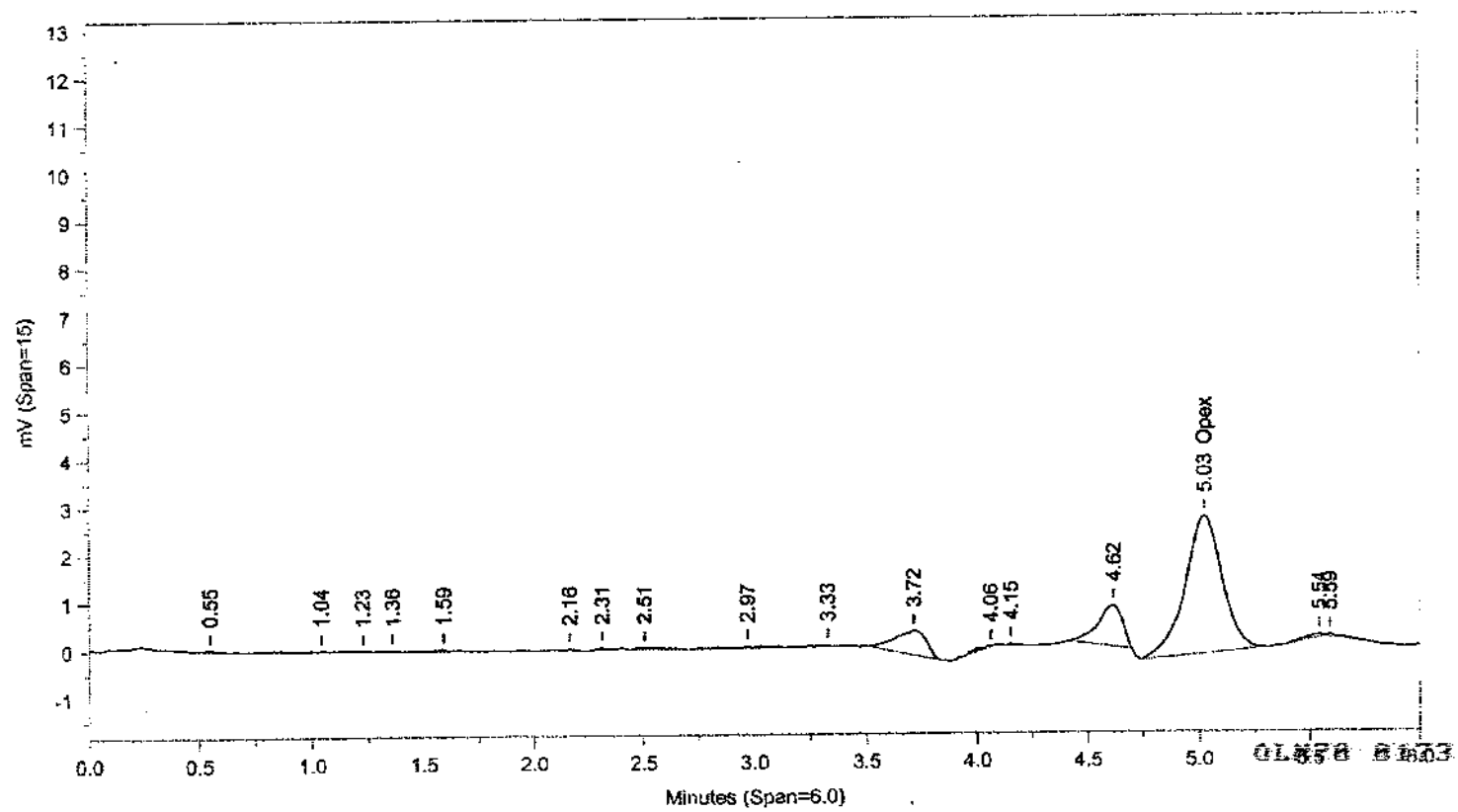
6/15/2011

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1X11166.04R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:32:23 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:32:23 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

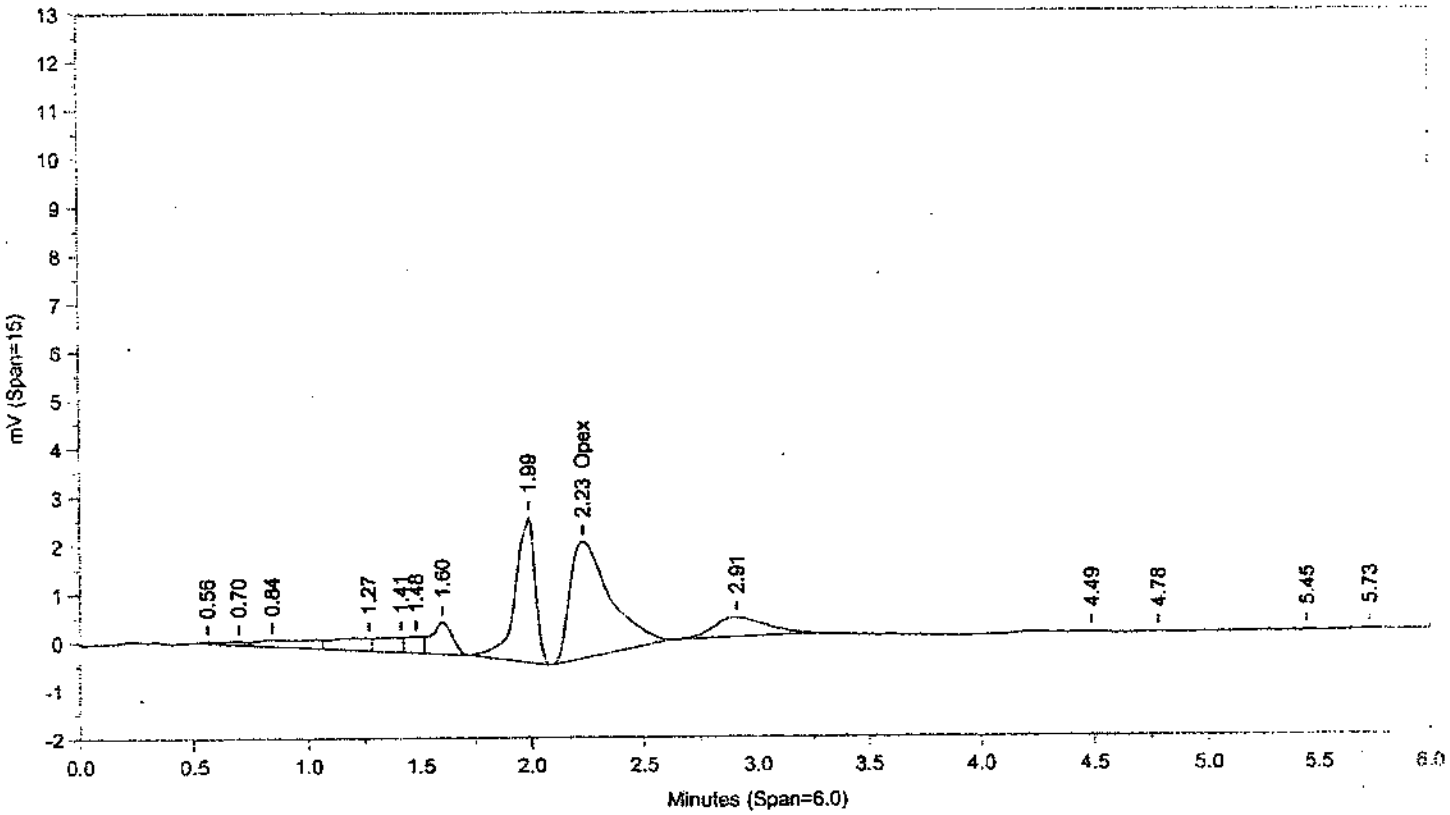
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.216	3622	1116.962	Opex	5.025	2879	-3270.683	Opex

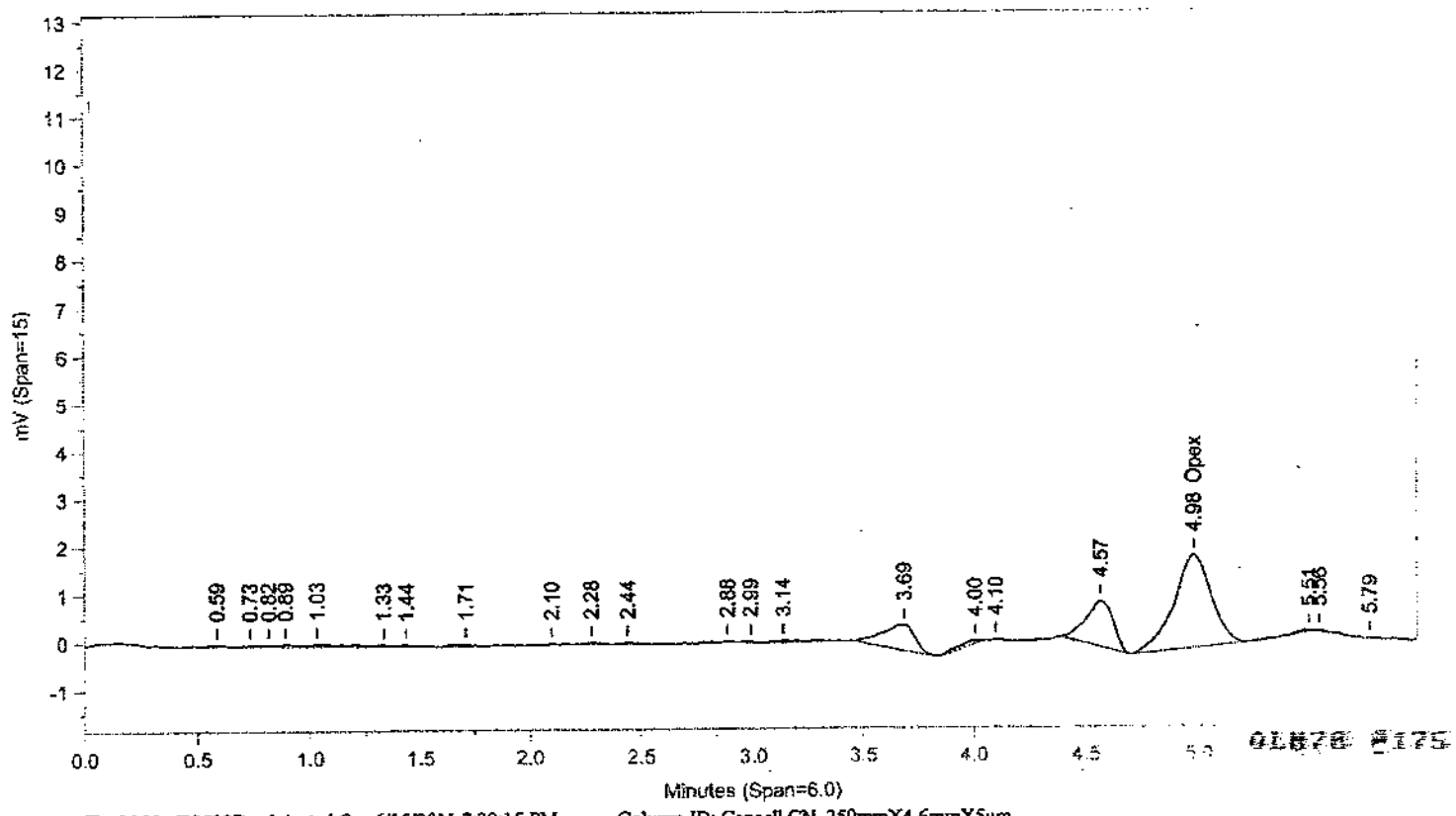
Files:
Area File: C:\CPWIN\DATA1\1X11166.04A
Area File: C:\CPWIN\DATA1\1X11166B.04A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:51:24 PM
File Reported On: 6/16/2011 at 8:51:36 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1X11166.05R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:39:15 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:39:15 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

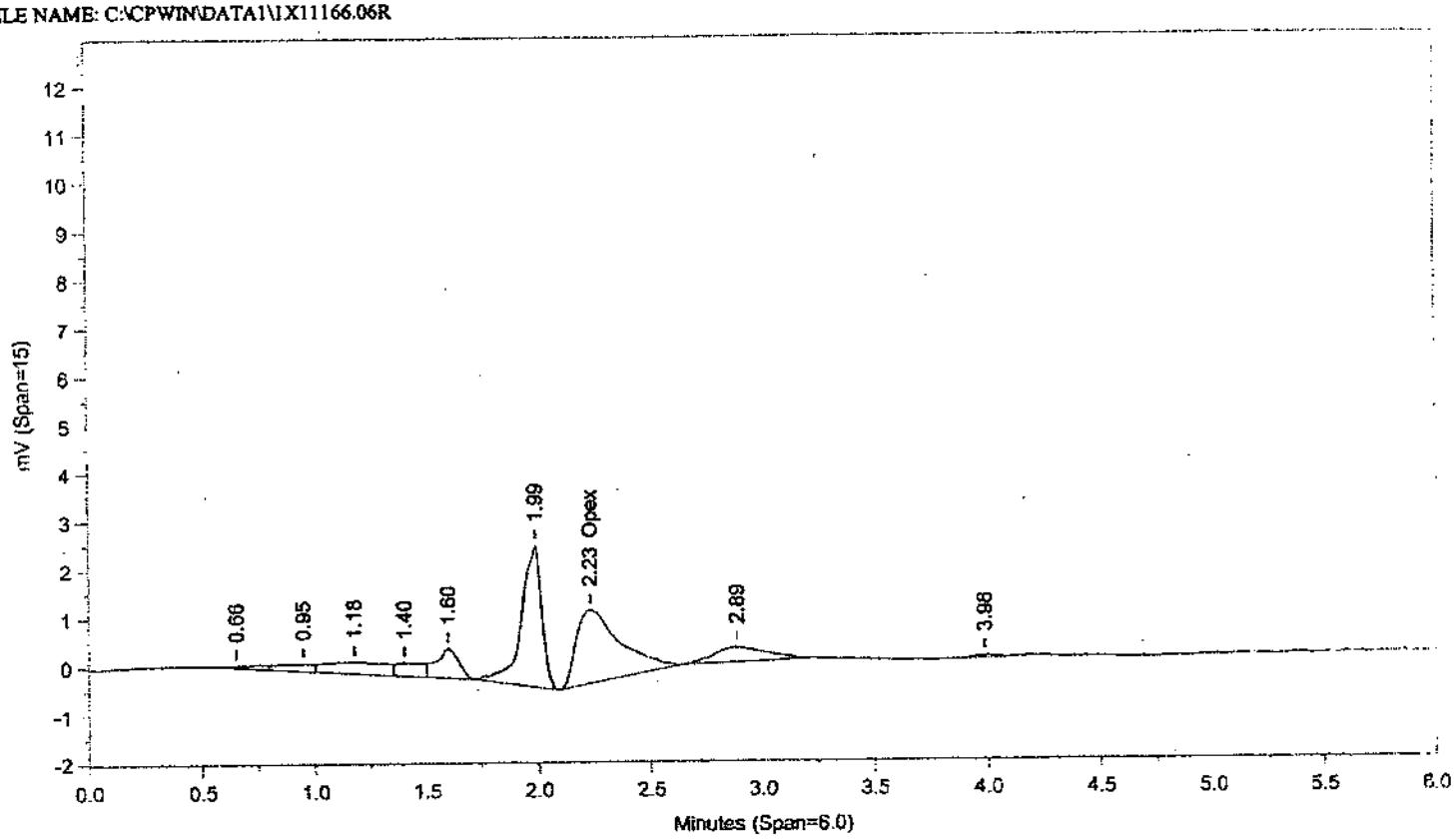
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

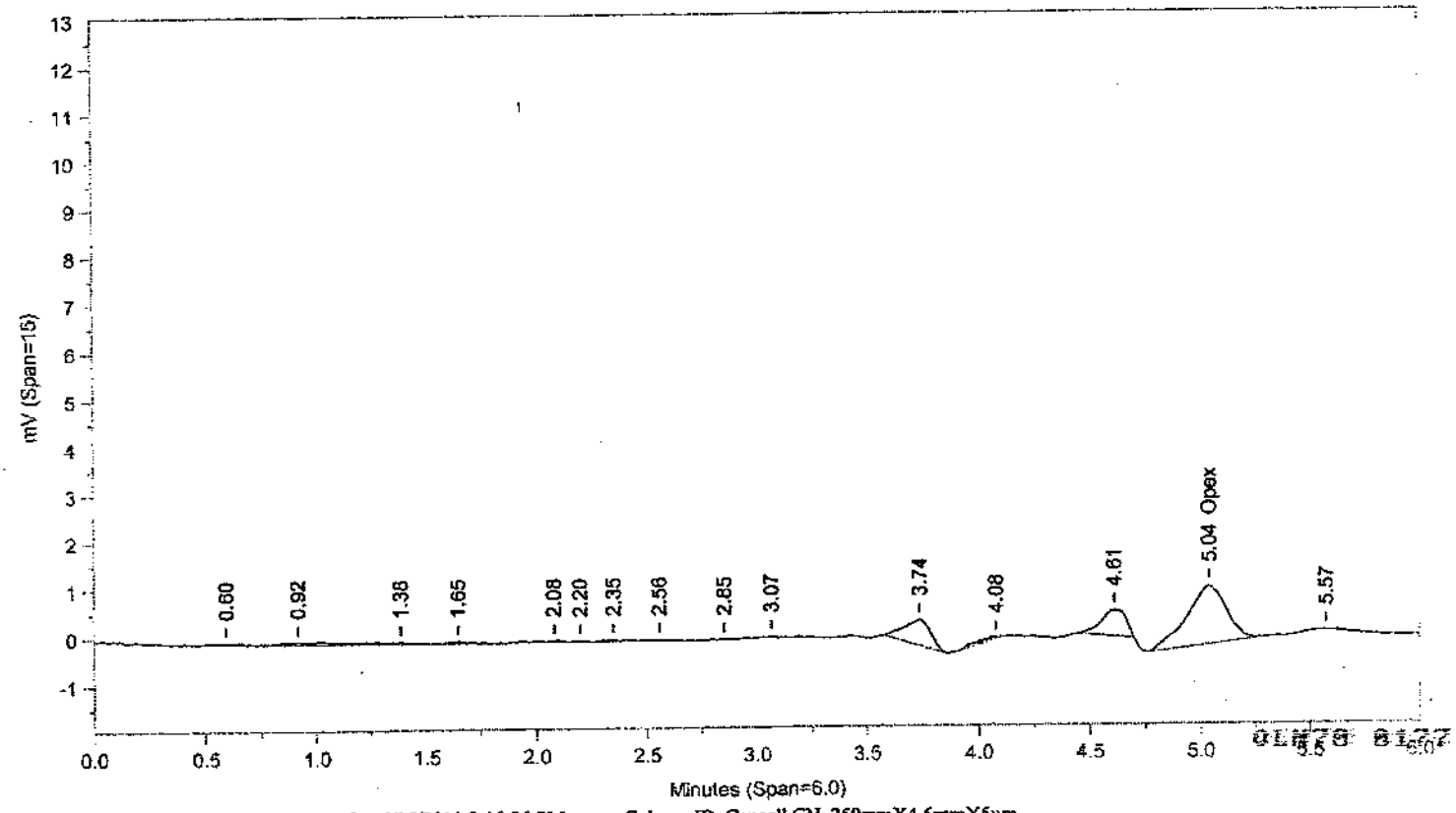
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.231	2418	677.713	Opex	4.98	1937	1026.663	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11166.05A
Area File: C:\CPWIN\DATA1\1X11166B.05A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:51:50 PM
File Reported On: 6/16/2011 at 8:52:01 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.06R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:46:06 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:46:06 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

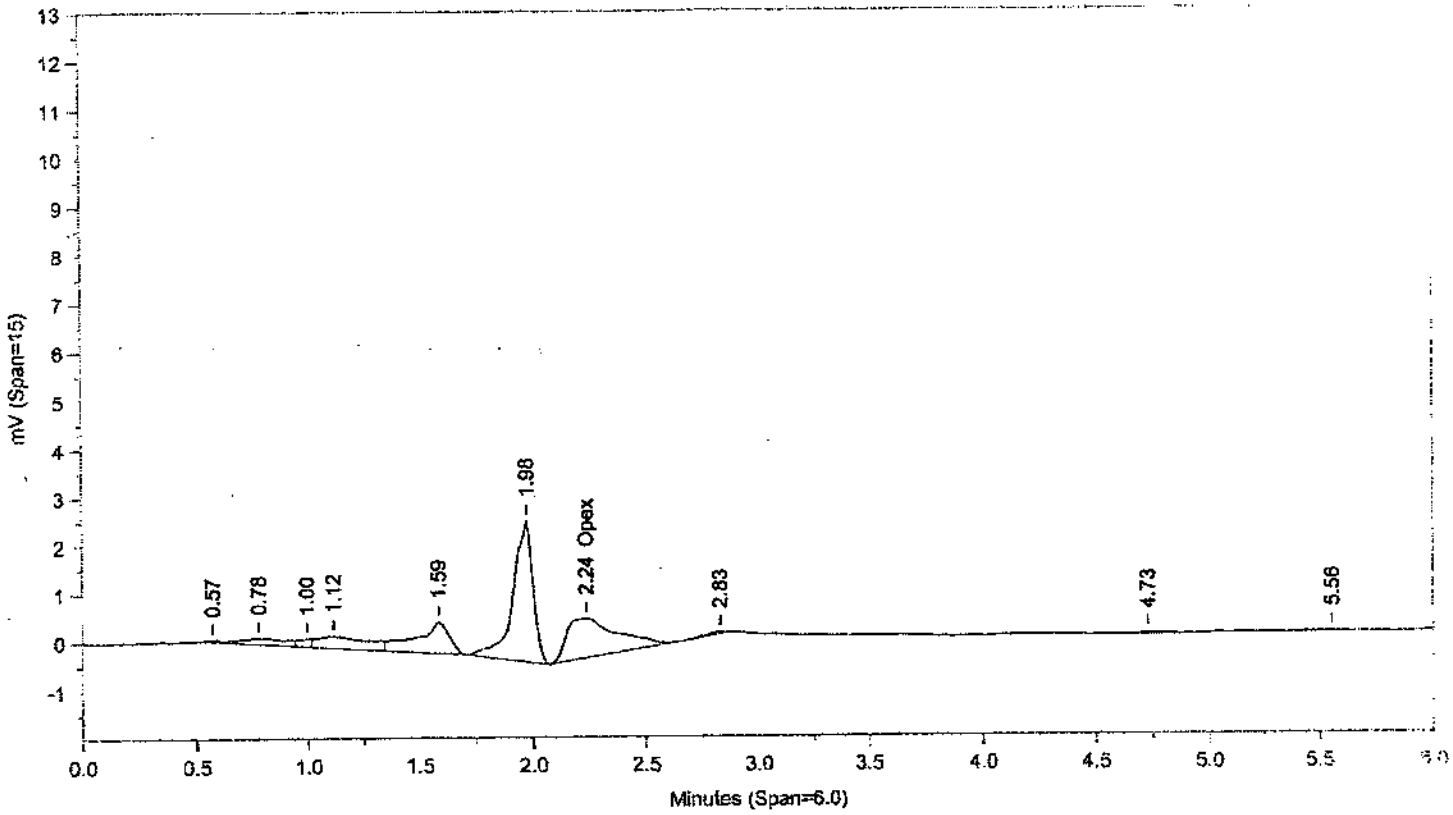
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.23	1515	348.413	Opex	5.04	1215	464.382	Opex

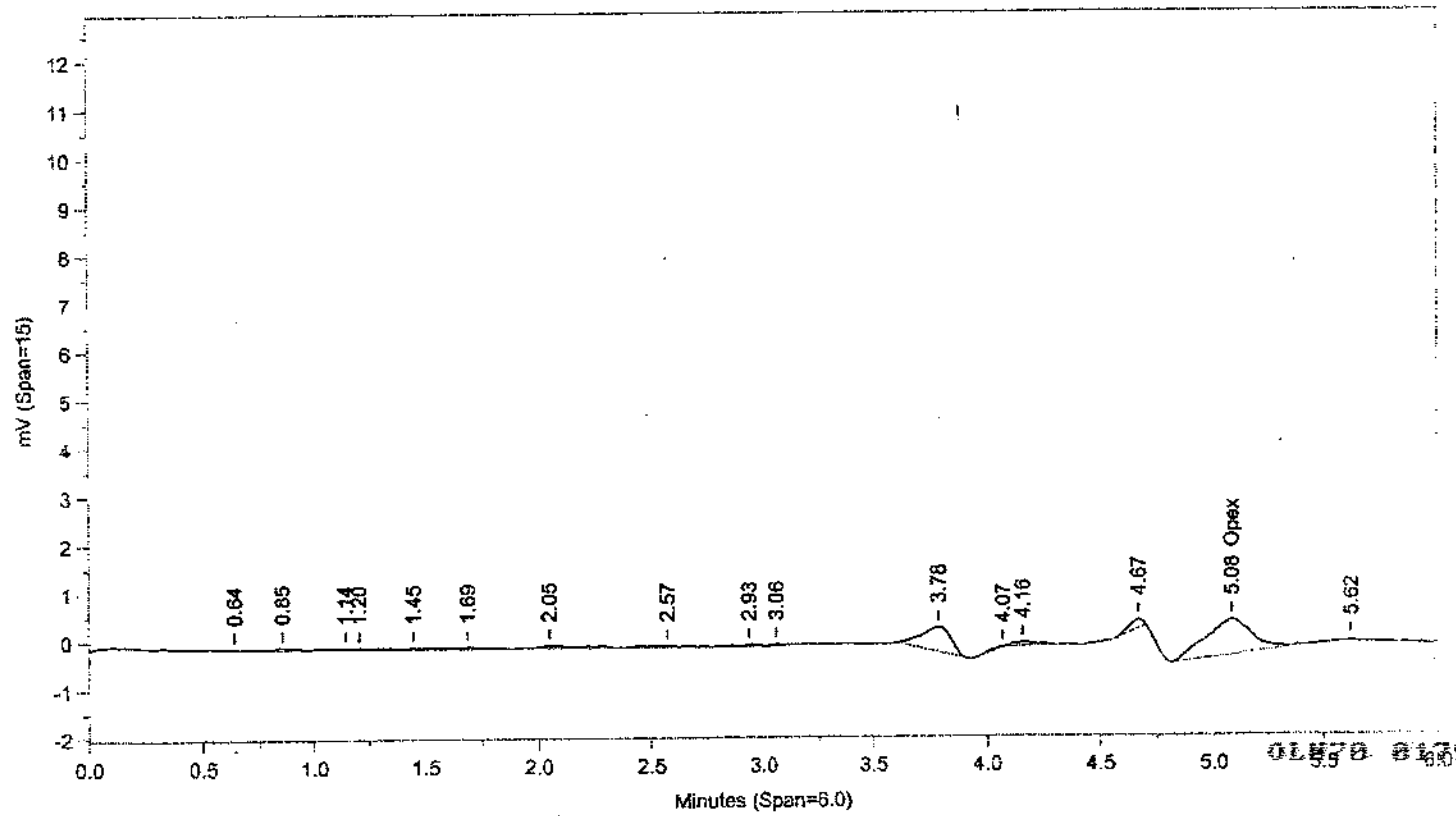
Files:
Area File: C:\CPWIN\DATA1\1X11166.06A
Area File: C:\CPWIN\DATA1\1X11166B.06A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:52:14 PM
File Reported On: 6/16/2011 at 8:52:26 PM

LANCASTER LABORATORIES

FILE NAME: C:\CPWIN\DATA1\1X11166.07R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:52:58 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:52:58 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

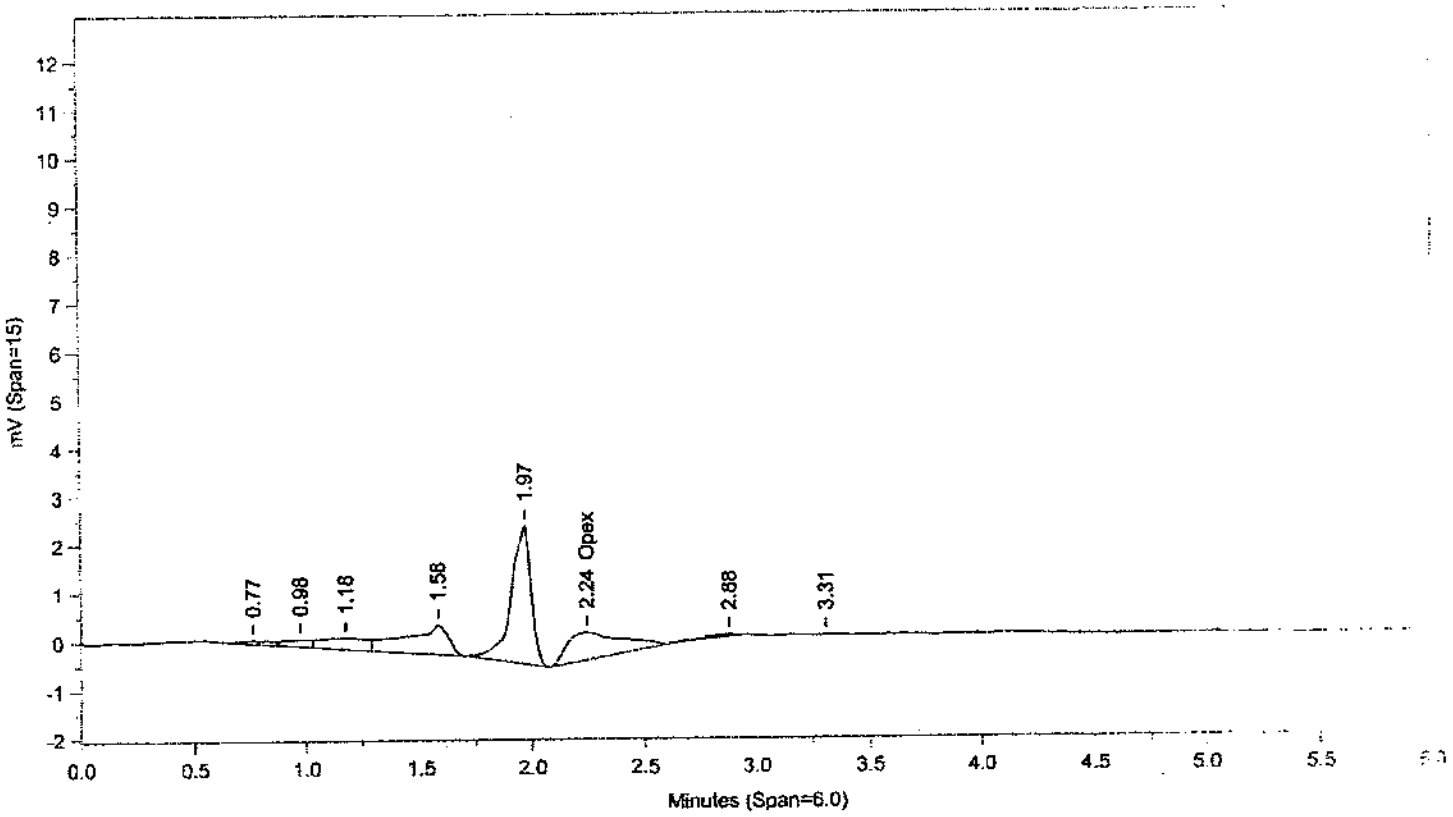
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

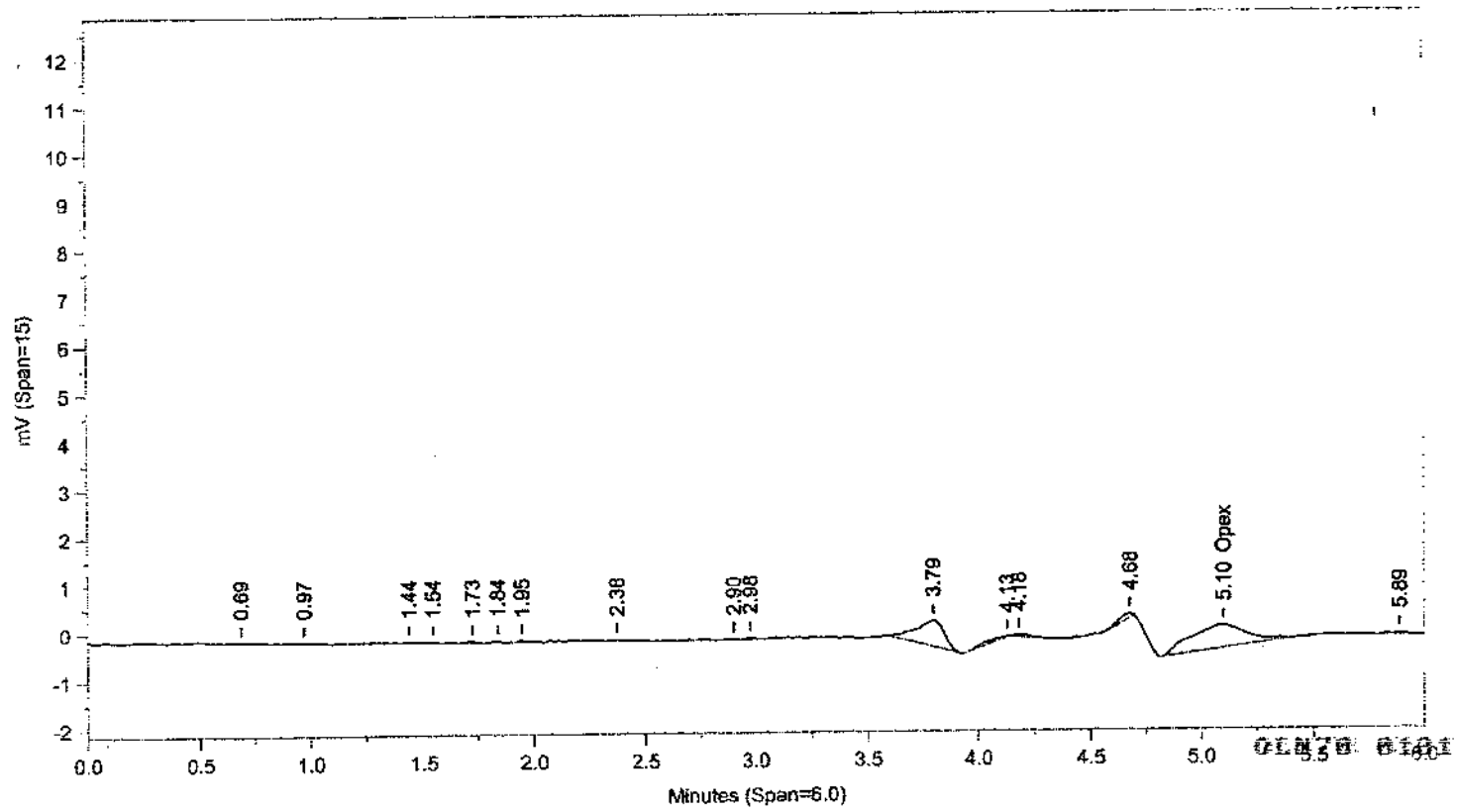
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.238	808	137.774	Opex	5.081	730	256.523	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11166.07A
Area File: C:\CPWIN\DATA1\1X11166B.07A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:52:40 PM
File Reported On: 6/16/2011 at 8:52:50 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.08R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 7:59:48 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 7:59:48 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

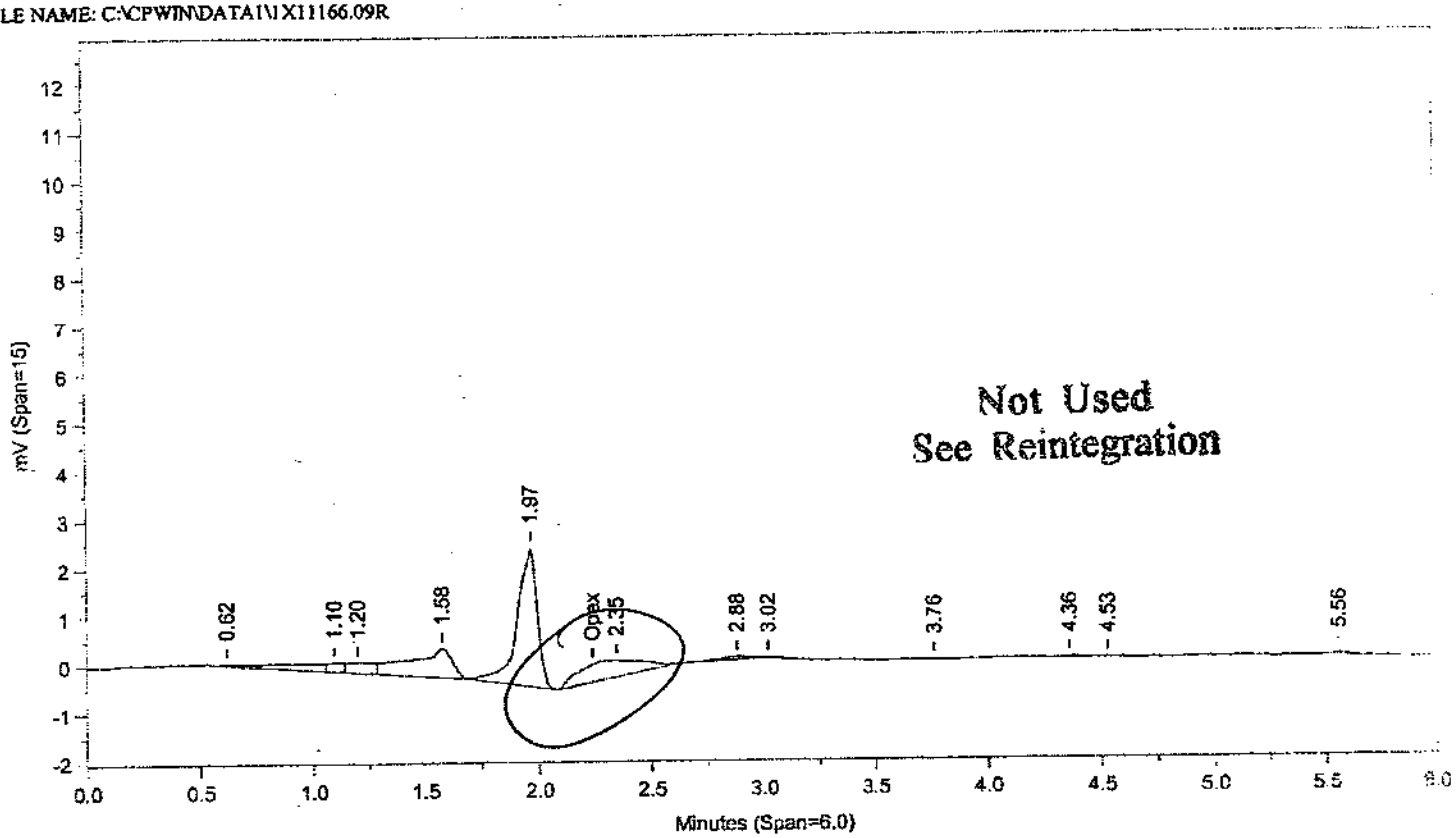
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

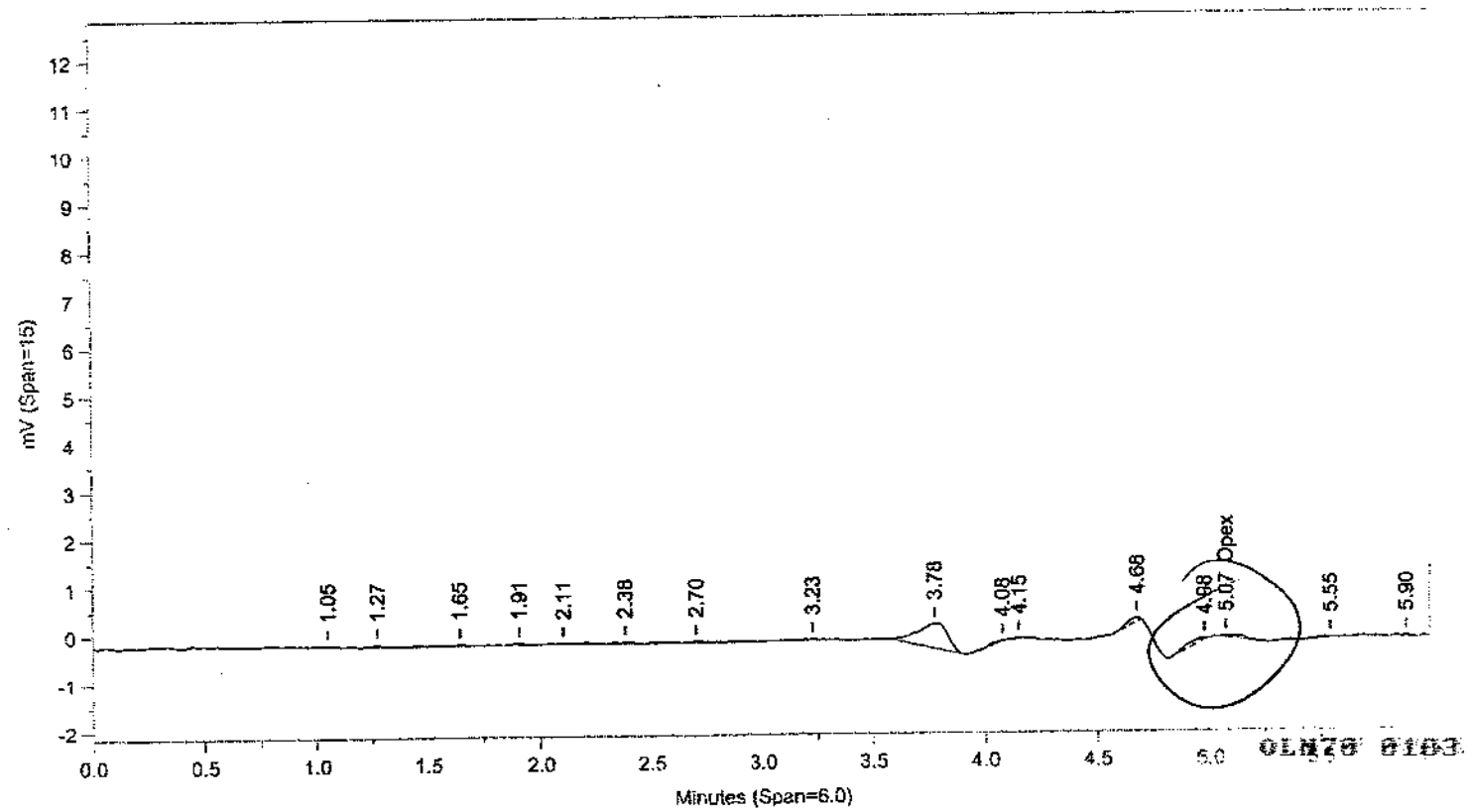
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.243	565	103.219	Opex	5.102	482	141.647	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11166.08A
Area File: C:\CPWIN\DATA1\1X11166B.08A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:53:04 PM
File Reported On: 6/16/2011 at 8:53:15 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.09R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 8:06:40 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 8:06:40 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

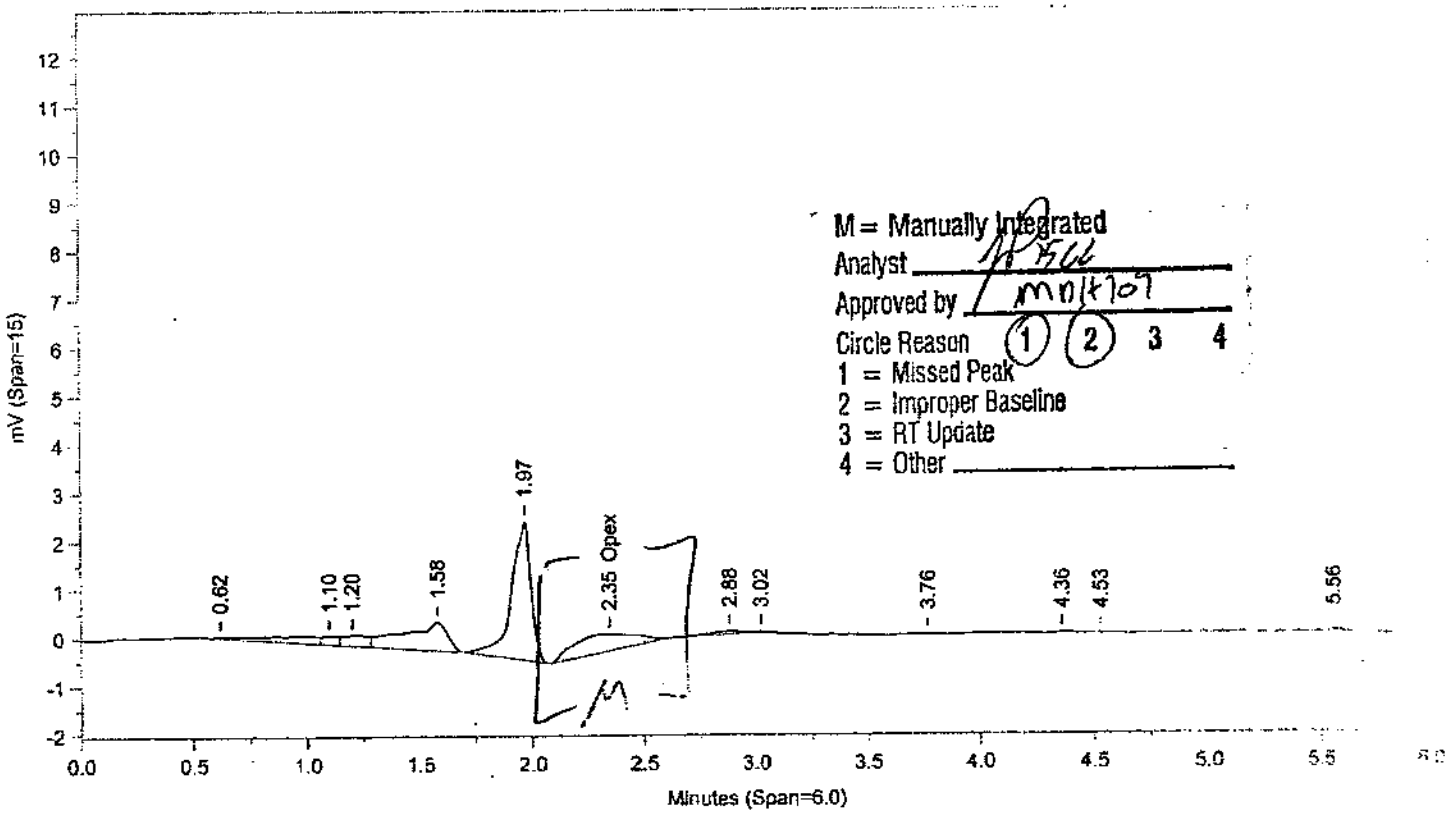
Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
	0		Opex	5.071	41	-61.24	Opex

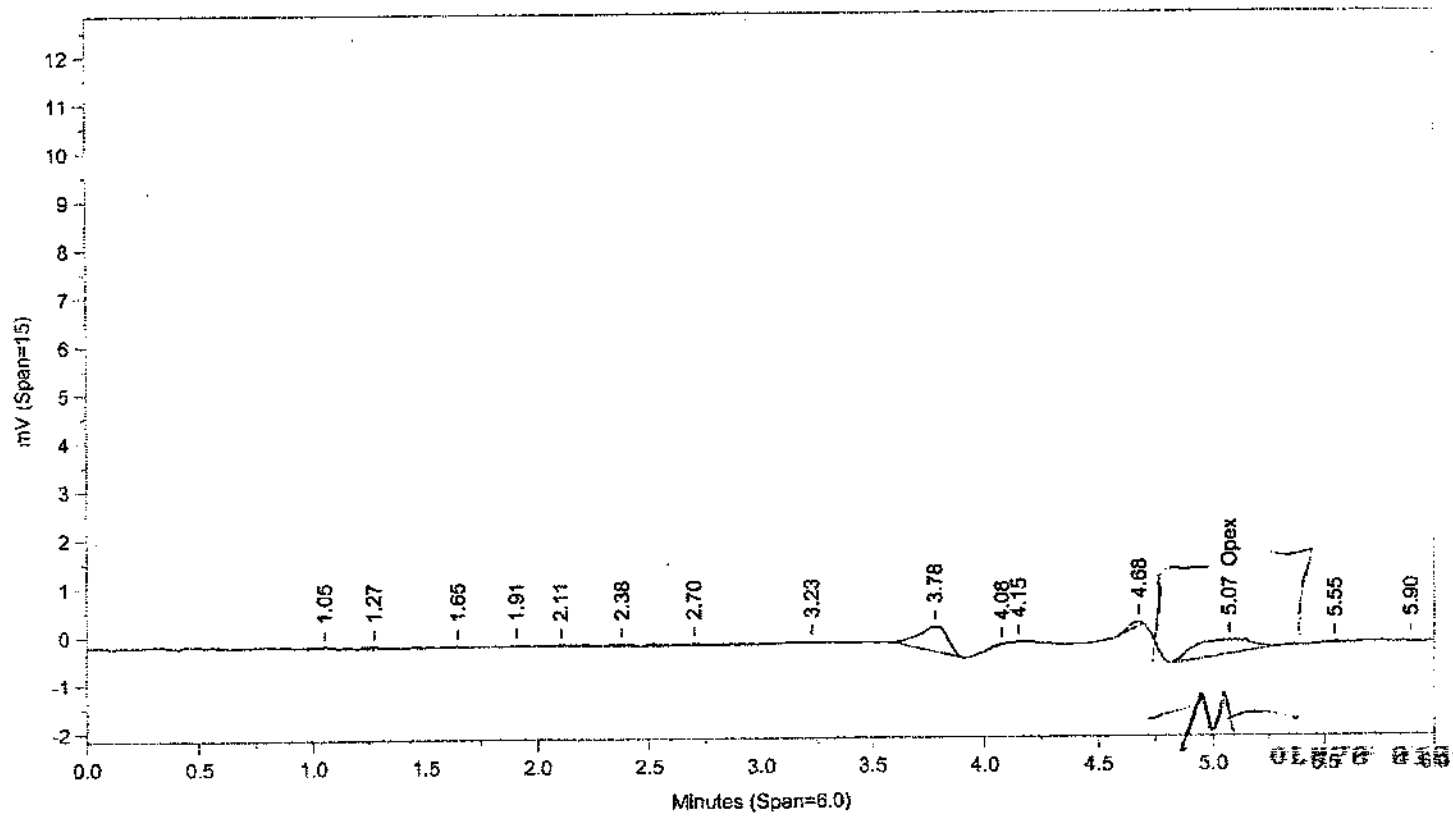
Files:
Area File: C:\CPWIN\DATA1\1X11166.09A
Area File: C:\CPWIN\DATA1\1X11166B.09A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:54:42 PM
File Reported On: 6/16/2011 at 8:54:52 PM

Not Used
See Reintegration

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA\1X11166.09R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 8:06:40 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 8:06:40 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

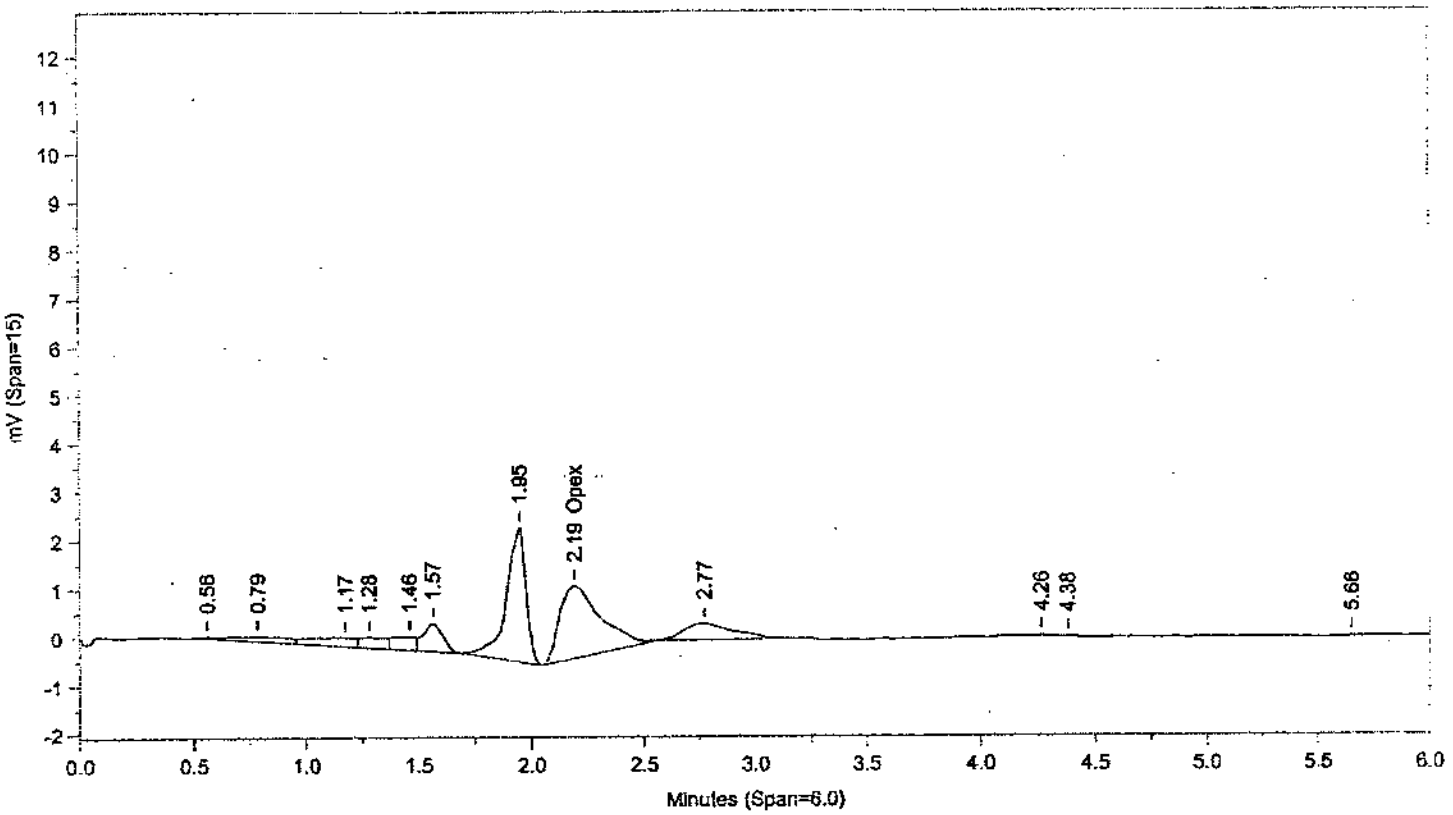
Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

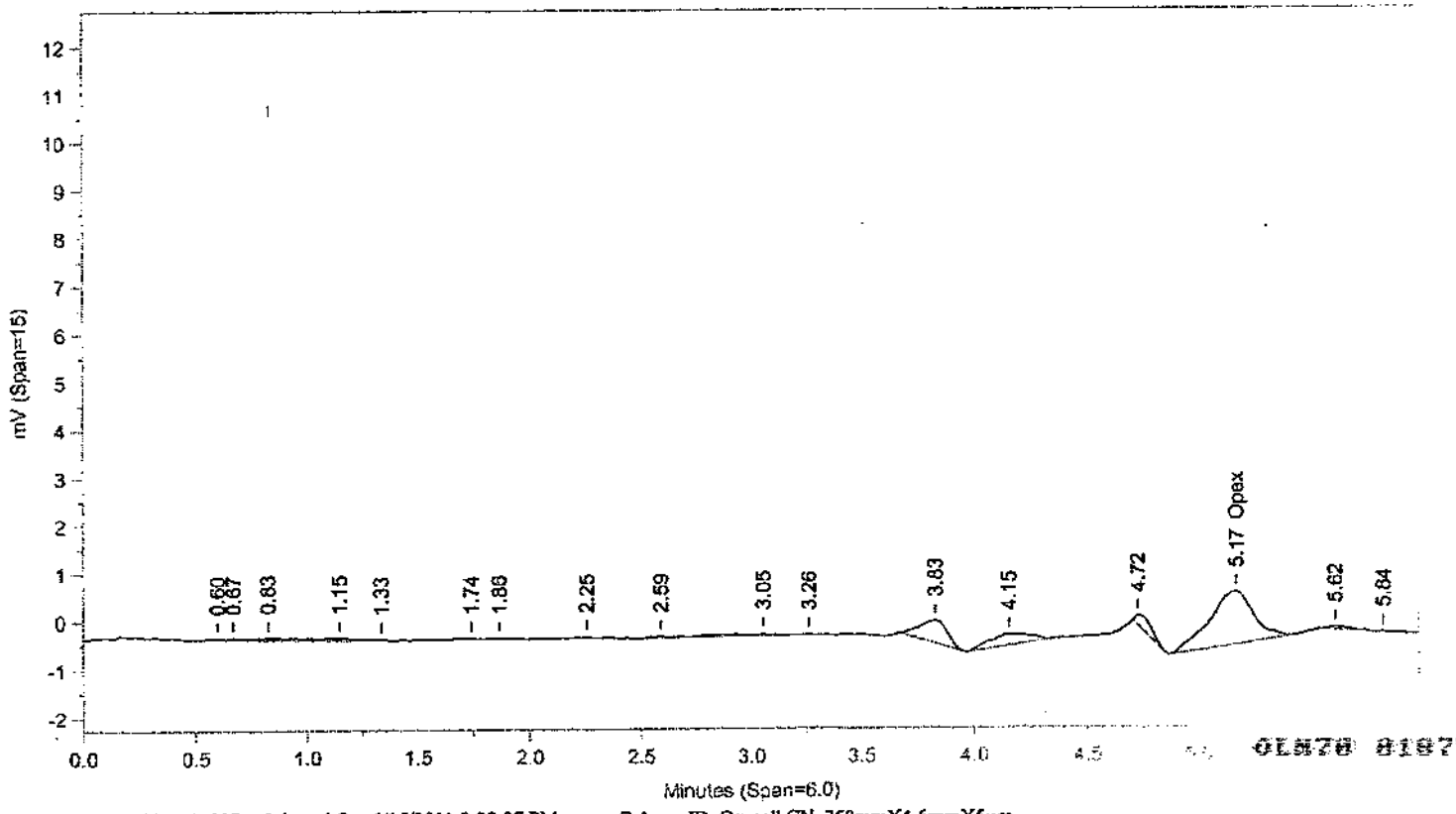
RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.347	350	60.782	Opex	5.071	295	44.489	Opex

Files:
Area File: C:\CPWIN\~Dualcha.00A
Area File: C:\CPWIN\~Dualchb.00A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\IX11166.CAL
Calibration File B: C:\CPWIN\DATA1\IX11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 9:02:26 PM
File Reported On: 6/16/2011 at 9:02:24 PM

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11166.20R



Instrument ID: CP09--K3593A Injected On: 6/15/2011 9:22:07 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/15/2011 9:22:07 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 1
Analyst: 1566

Dilution Factor: 1

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.194	1495	431.185	Opex	5.171	1093	377.313	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11166.20A
Area File: C:\CPWIN\DATA1\1X11166B.20A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11166.CAL
Calibration File B: C:\CPWIN\DATA1\1X11166B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/16/2011 8:58:26 PM
File Reported On: 6/16/2011 at 8:58:35 PM

Raw QC Data

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. PBLK22161

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** BLANKA

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11161.10R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/10/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	20	U

OLM7.0 8198

Lancaster Laboratories-Single Component Data Summary

Sample Name: BLANKA 6/10/11 PBLK22161 Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 10342

Analysis Report (A)

Injected on	: JUN 10, 2011 21:09:29
Instrument	: CP09--K3593A
Result file	: 1X11161.10R
Calibration file	: 1X11161.CAL
Method file	: OPEX.MET

Analysis Report (B)

Injected on	: JUN 10, 2011 21:09:29
Instrument	: CP09--K35938
Result file	: 1X11161B.10R
Calibration file	: 1X11161B.CAL
Method file	: OPEXB.MET

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.02	2.18	2.22	45	-56.032379

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.21	5.30	5.41	35	-88.792419

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____ Date: 6/15/11

Verified by: Valerie Tomayko Date: JUN 16 2011

Valerie Tomayko
Senior Specialist

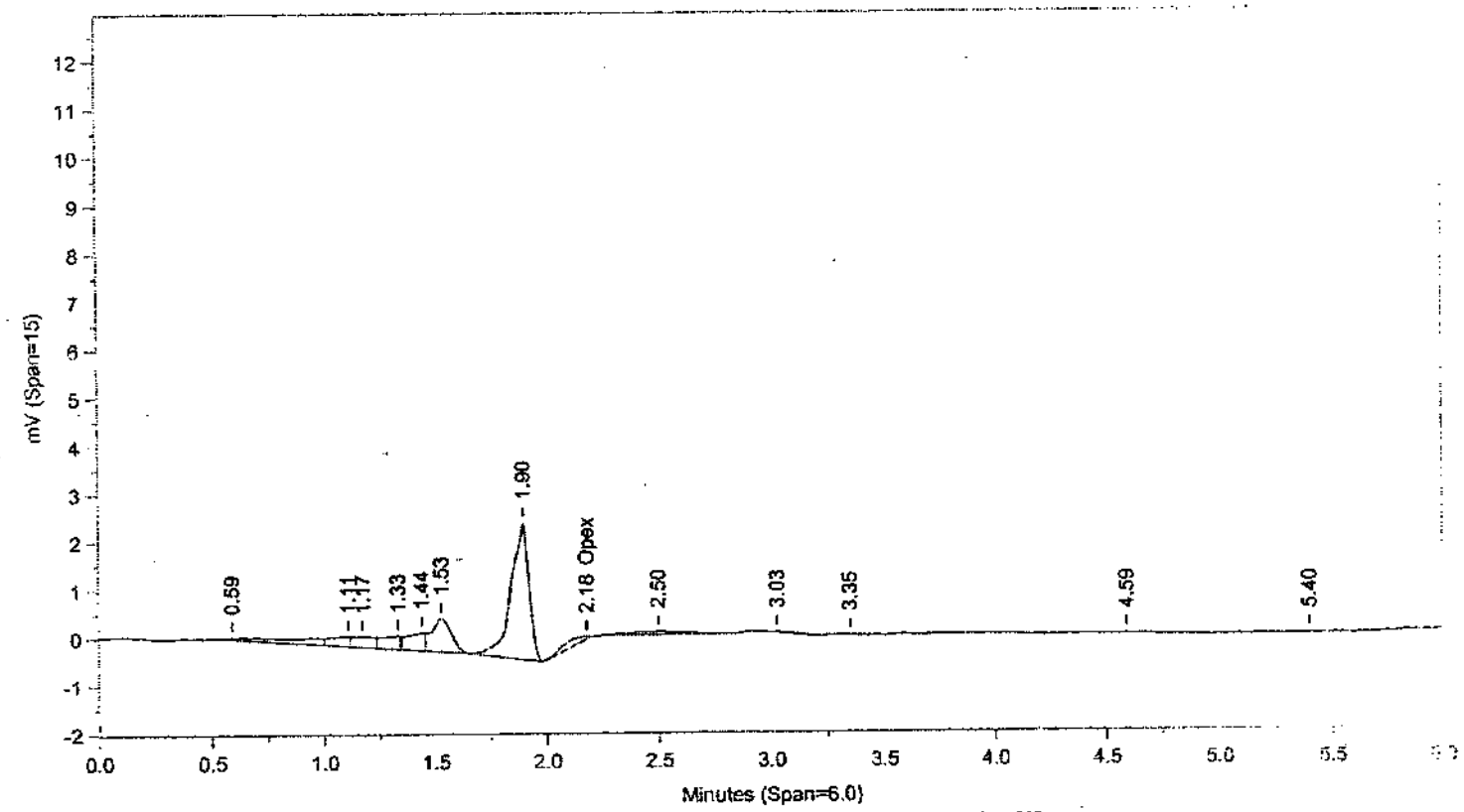
OLN28 6191

%Difference = High - Low Amount divided by the Average times 100

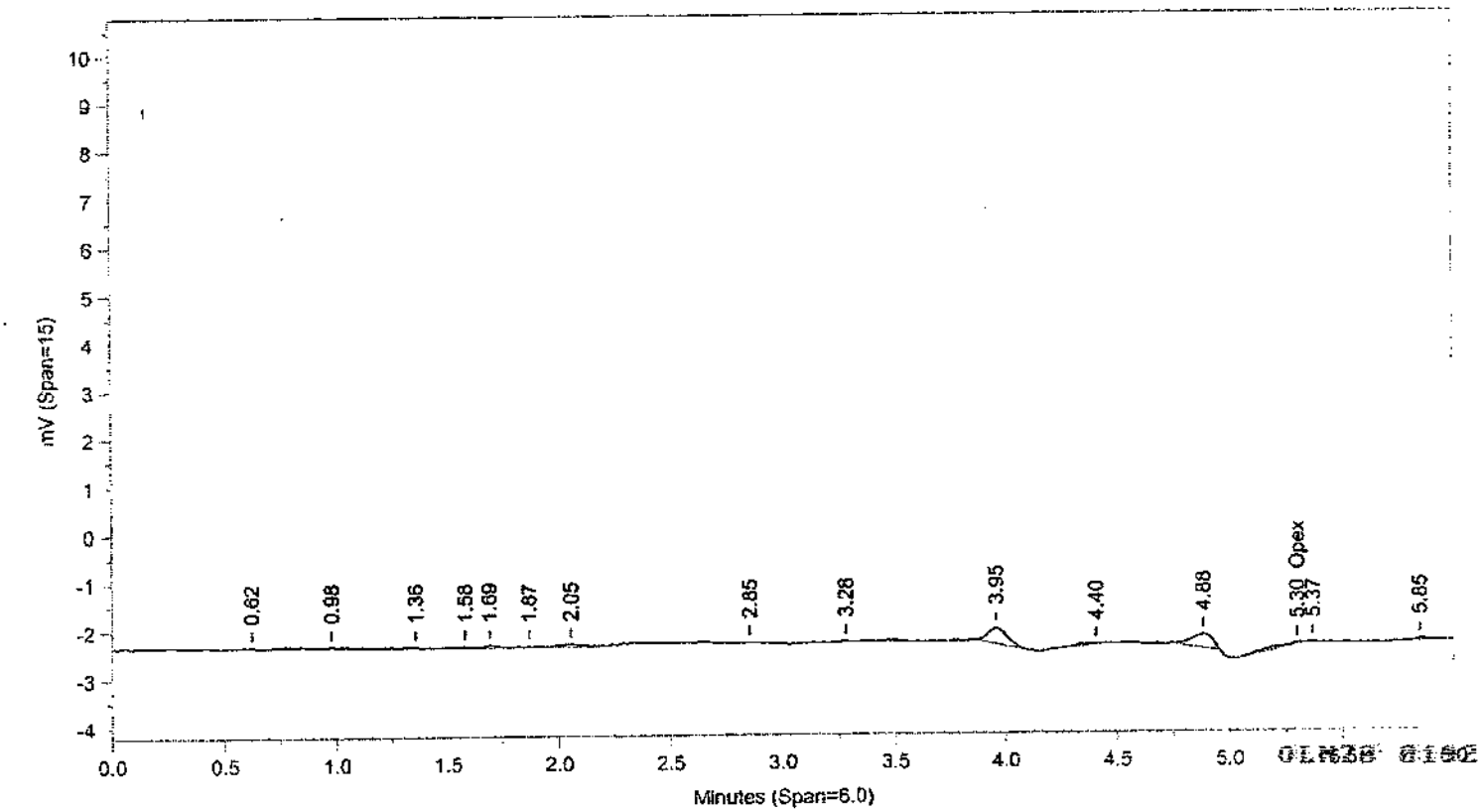
* Recovery outside QC Limits

Printed on: 6/14/11 19:21:24

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.10R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 9:09:28 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 9:09:28 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.176	45	-56.032	Opex	5.298	35	-88.792	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.10A
Area File: C:\CPWIN\DATA1\1X11161B.10A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:53:42 PM
File Reported On: 6/14/2011 at 6:53:50 PM

1D

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. LCS22161

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** LCSA

Sample wt/vol: 10 **(g/ml)** ml **Lab File ID:** 1X11161.11R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 **(uL)** **Date Analyzed:** 6/10/2011

Injection Volume: 30 **(uL)** **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	690	

OLN20 0194

Lancaster Laboratories-Single Component Data Summary

Sample Name: LCSA 6/10/11 LCS22161 Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 10342

Analysis Report (A)

Injected on : JUN 10, 2011 21:16:20
Instrument : CP09--K3593A
Result file : 1X11161.11R
Calibration file : 1X11161.CAL
Method file : OPEX.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.02	2.11	2.22	3067	686.423096

Analysis Report (B)

Injected on : JUN 10, 2011 21:16:20
Instrument : CP09--K3593B
Result file : 1X11161B.11R
Calibration file : 1X11161B.CAL
Method file : OPEXB.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.21	5.32	5.41	1472	690.061340

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____
Date: _____

Verified by: Valerie Tomayko
Date: JUN 16 2011

Valerie Tomayko
Senior Specialist

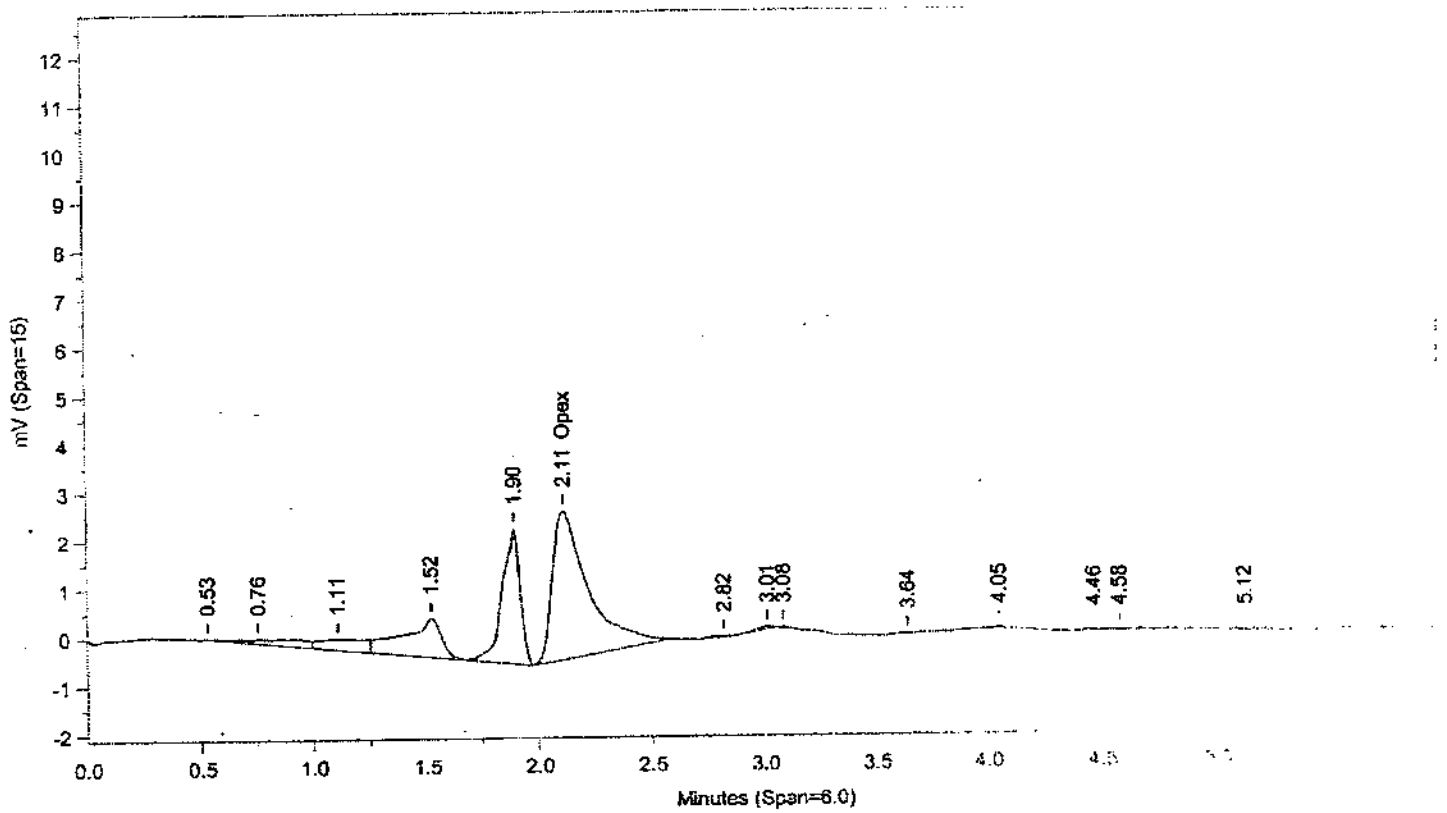
GLM78 8195

%Difference = High - Low Amount divided by the Average times 100

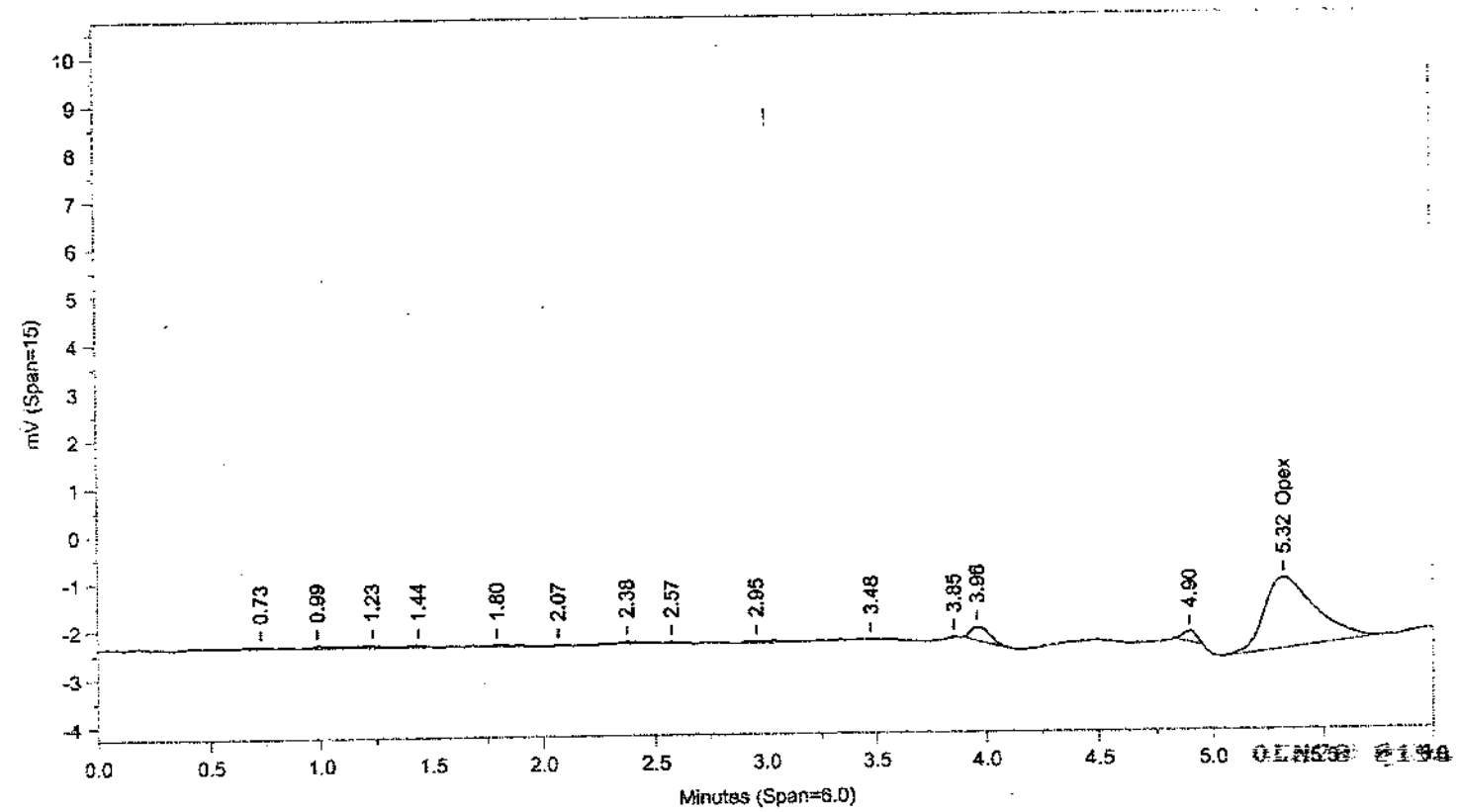
* Recovery outside QC Limits

Printed on: 6/14/11 19:21:47

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA\IX11161.11R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 9:16:19 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 9:16:19 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.114	3067	686.423	Opex	5.323	1472	690.061	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.11A
Area File: C:\CPWIN\DATA1\1X11161B.11A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:54:02 PM
File Reported On: 6/14/2011 at 6:54:11 PM

ORGANICS ANALYSIS DATA SHEET

SAMPLE CODE NO. LCSD22161

Lab Name: Lancaster Laboratories **Contract:** **Batchnumber:** 111610022A

Lab Code: **Case No.:** **SAS No.:** **SDG No.:**

Matrix: (soil/water) WATER **Lab Sample ID:** LCSDA

Sample wt/vol: 10 (g/ml) ml **Lab File ID:** 1X11161.12R

% Moisture: **Decanted: (Y/N)** **Date Received:**

Extraction: (SepF/Cont/Sonc) Direct Injection **Date Extracted:** 6/10/2011

Concentrated Extract Volume: 10000 (uL) **Date Analyzed:** 6/10/2011

Injection Volume: 30 (uL) **Dilution Factor:** 1

GPC Cleanup: (Y/N) N **pH:** **Sulfur Cleanup: (Y/N)** N

CAS NO.	COMPOUND	CONCENTRATION UNITS (UG/L or UG/KG) ug/l	Q
101-25-7	Opex	690	

OLM7.0 8198

Lancaster Laboratories-Single Component Data Summary

Sample Name: **LCSDA** 6/10/11 LCSD22161 Sample ID: AA **Batchnumber: 111610022A**
Sample Amount: 10 ml Total Volume: 10 ml Analyst: 1566 SDG: State:
Analyses: 02726 10342

Analysis Report (A)

Injected on : JUN 10, 2011 21:23:12
Instrument : CP09-K3593A
Result file : 1X11161.12R
Calibration file : 1X11161.CAL
Method file : OPEX.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	2.02	2.13	2.22	3092	692.608765

Analysis Report (B)

Injected on : JUN 10, 2011 21:23:12
Instrument : CP09-K3593B
Result file : 1X11161B.12R
Calibration file : 1X11161B.CAL
Method file : OPEXB.MET
%SSR(Opex) :

Peak name	Min	R.T.	Max	Height	Amount
Opex	5.21	5.24	5.41	1476	692.493103

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%Difference	Comments
☑ Opex			<100	<20			

Units: ug/l

Reviewed by: _____ Date: 6/16/11

Verified by: Valerie Tomayko Date: JUN 16 2011

Valerie Tomayko
Senior Specialist

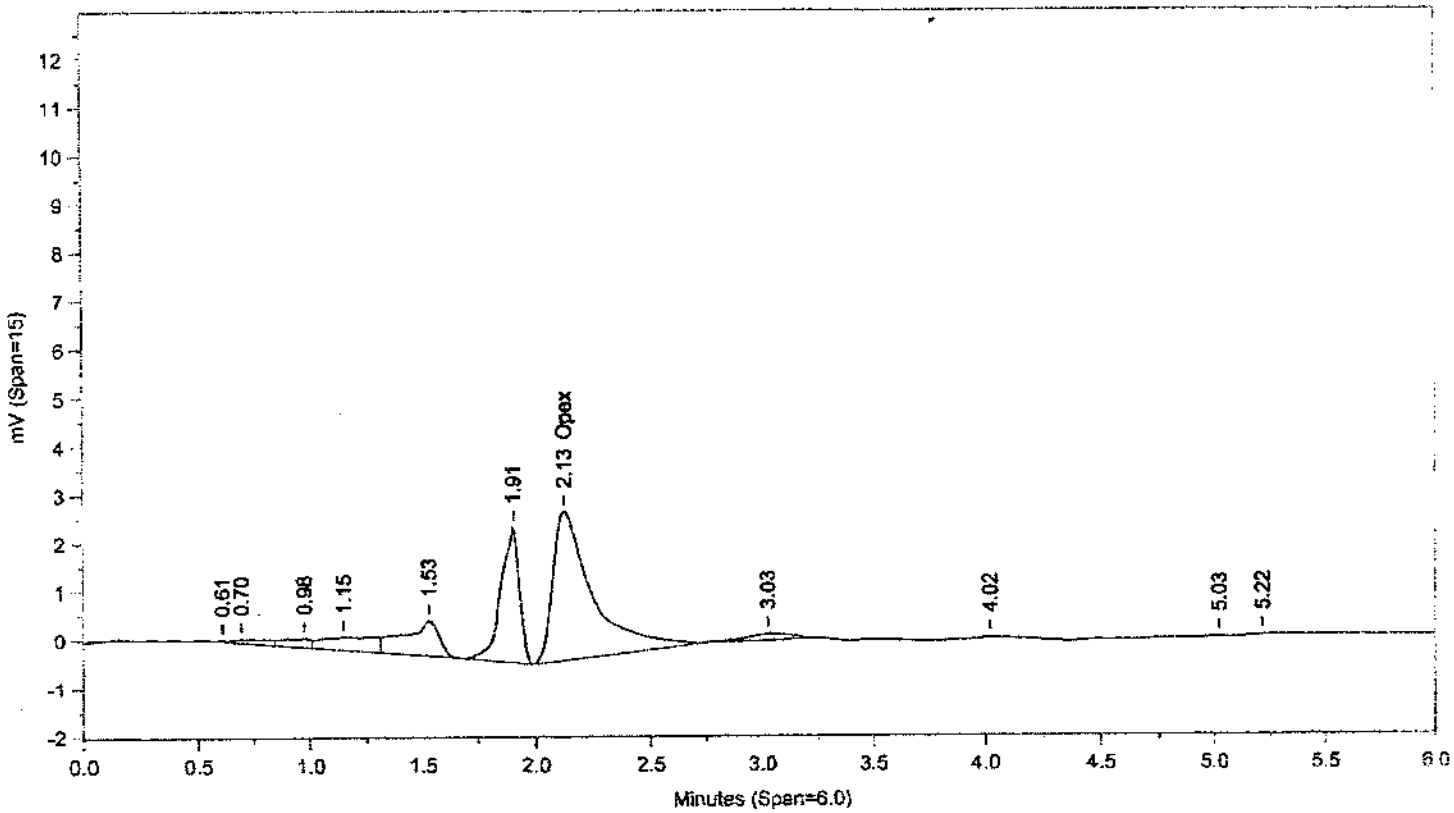
OLN78 8199

%Difference = High - Low Amount divided by the Average times 100

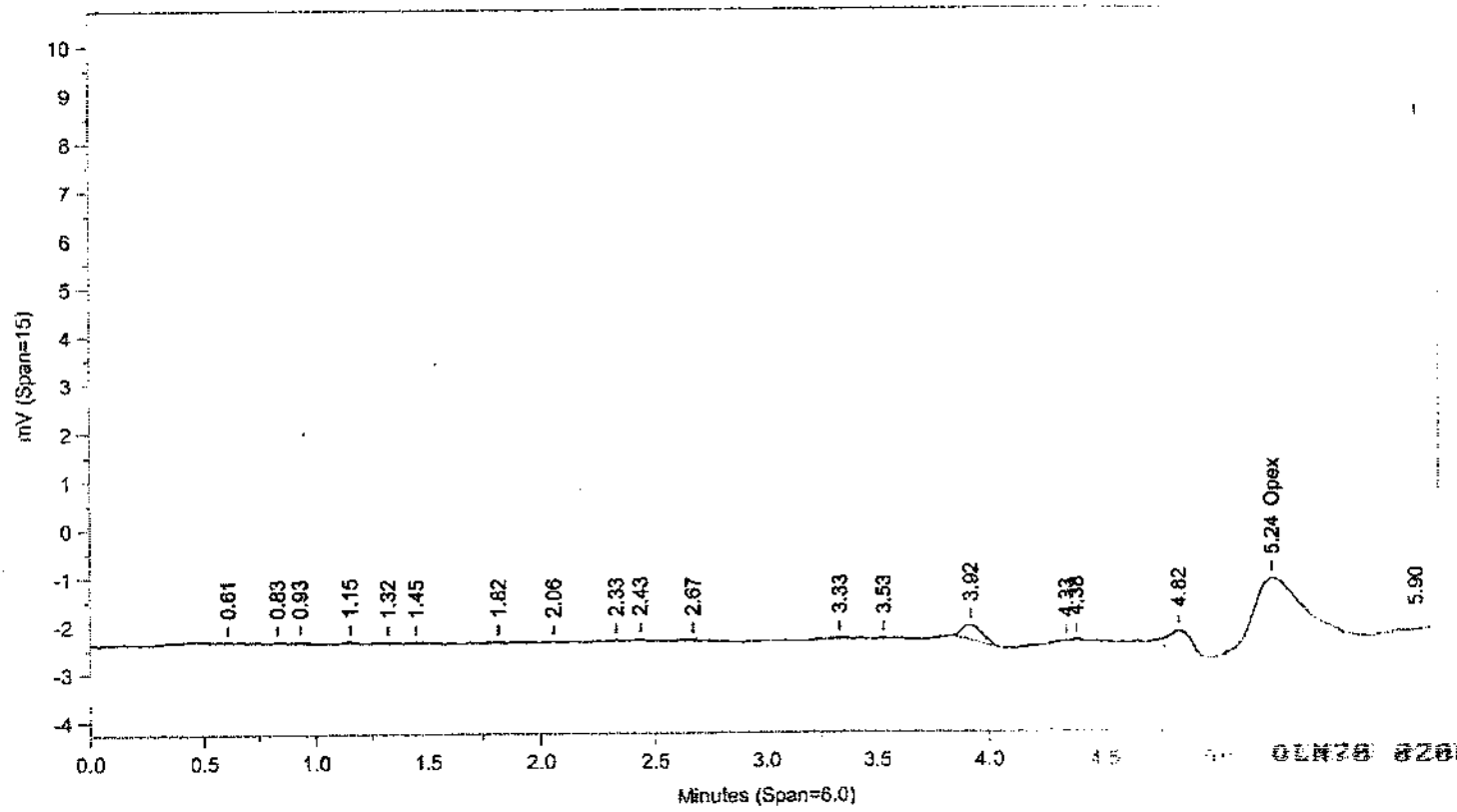
* Recovery outside QC Limits

Printed on: 6/14/11 19:22:08

LANCASTER LABORATORIES
FILE NAME: C:\CPWIN\DATA1\1X11161.12R



Instrument ID: CP09--K3593A Injected On: 6/10/2011 9:23:11 PM Column ID: Supelcosil PAH, 250mmX4.6mmX5um



Instrument ID: CP09--K3593B Injected On: 6/10/2011 9:23:11 PM Column ID: Capcell CN, 250mmX4.6mmX5um

Oven Parameters: 75% Phosphate Buffer : 25% ACN

Volume Inj: 1

Detector A Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantitation: Height

Detector B Parameters:
Threshold: -4 Width: 0.1
Calibration Type: External

Area Reject: 100
Quantiation: Height

Sample Weight: 10
Analyst: 1566

Dilution Factor: 10

RT A	Height A	Amount A	Compound A	RT B	Height B	Amount B	Compound B
2.126	3092	692.609	Opex	5.243	1476	692.493	Opex

Files:
Area File: C:\CPWIN\DATA1\1X11161.12A
Area File: C:\CPWIN\DATA1\1X11161B.12A
Method A: C:\CPWIN\DATA1\OPEX.MET
Method B: C:\CPWIN\DATA1\OPEXB.MET
Calibration File A: C:\CPWIN\DATA1\1X11161.CAL
Calibration File B: C:\CPWIN\DATA1\1X11161B.CAL
Format A: C:\CPWIN\DATA1\OPEXD.FMTA
Format B: C:\CPWIN\DATA1\OPEXD.FMTB
Area File Created On: 6/14/2011 6:54:22 PM
File Reported On: 6/14/2011 at 6:54:31 PM

Extraction/Distillation/Digestion Logs

0LN70 0202

Organic Extraction Batchlog Assigned to: 1566 James Place Reviewed by: _____ Start Date: 6/10/11 Start time: 7:00pm

111610022A Tech 1: [illegible] Tech 2: _____

Dept: 24	Prep Analysis: 00000				Opex in Water						
QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6308056MS	ISC1-	10			ST11143248	0.1	10	6.57	9.72	17BA	Yellowish
6308057MSD	ISC1-	10			"	0.1	10	6.62	9.34	"	"
BLANKA	PBLK22161	10					10			N/C	
LCSA	LCS22161	10			ST11143248	0.1	10			"	
LCSDA	LCSD22161	10			"	0.1	10			"	

ST11143248 - Opex stock

Sample #		Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6308055BKG	ISC1-	10			TD	6.51	9.42	17BA	Yellowish	02726	06/17/2011	P
2	6308068	ISC1D	10			10	6.62	9.70		Yellowish	02726	06/17/2011	P
3	6308069	ISC2-	10			10	6.88	9.22			02726	06/17/2011	P
4	6308074	PZ16R	10			10	6.15	9.73		Orangish sediment	02726	06/17/2011	P
5	6308075	PZ17R	10			10	5.10	9.12			02726	06/17/2011	P
6	6308076	-SD-1	10			10	7.08	9.30			02726	06/17/2011	P
7	6309550	5-XXX	10			10	7.04	9.89		Yellowish w/sediment	02726	06/20/2011	P
8	6309553	1-XXX	10			10	5.84	9.66		Orange sediment	02726	06/20/2011	P
9	6309554	2-XXX	10			10	6.48	9.59			02726	06/20/2011	P
10	6309555	S-XXX	10			10	6.57	9.28			02726	06/20/2011	P
11	6310720	EDSD0	10			10	6.53	9.69			02726	06/21/2011	P
12	6310721	EDSD1	10			10	7.26	9.64			02726	06/21/2011	P
13	6310722	EDSD2	10			10	7.05	9.15			02726	06/21/2011	P
14	6310723	EDSD5	10			10	7.19	9.58			02726	06/21/2011	P
15	6310724	MMB-2	10			10	7.33	9.82			02726	06/21/2011	P

Rack ID:		Work Station	
Internal Standard		Balance #	

DF = Dilution Factor FV = Final Volume

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	111610022A

Documented temps are NIST corrected.

Hydrazines by LC/MS/MS

Case Narrative
Conformance/Nonconformance
Summary

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Specialty Services Group
Fraction: Hydrazines by LC/MS/MS

Hydrazines in Water

Sample #	Client ID	Matrix Liquid	Matrix Solid	Comments
6308068	OC-SW-MMB-SW/SD-1-XXX	X		Unspiked
6308069	OC-SW-MMB-SW/SD-1-XMS	X		Matrix Spike
6308070	OC-SW-MMB-SW/SD-1-MSD	X		Matrix Spike Duplicate
6308071	OC-SW-MMB-SW/SD-1-DUP	X		Field Duplicate Sample
6308072	OC-SW-MMB-SW/SD-4-XXX	X		
6308073	OC-SW-MMB-SW/SD-9-XXX	X		
6308074	OC-SW-PZ-16RR-XXX	X		
6308075	OC-SW-PZ-17RR-XXX	X		
6308076	OC-SW-SD-1-XXX	X		

See QC Reference List for Associated Batch QC Samples

SAMPLE PREPARATION:

Samples were derivatized with benzaldehyde prior to analysis.

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

No problems were encountered with the analysis of the samples.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

DATA INTERPRETATION:

The LCS serves as the ICV second source.

OLN70 0206

Lancaster Laboratories

CLIENT: Olin Corporation
SDG: OLN70

Specialty Services Group

Fraction: Hydrazines by LC/MS/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	
LCSD = Lab Control Sample Duplicate	* = Out of Specification
NC = Not calculated	NF = Not found

Narrative Reviewed and Approved 6/28/11 (Date) by

Luz C Torres
Group Leader

OLN70 0287

QC Summary

Lancaster Laboratories

Quality Control Reference List
Specialty Services Group

CLIENT: Olin Corporation
SDG: OLN70

Fraction: Hydrazines by LC/MS/MS

Analysis	Batch Number	Sample Number	Analysis Date
Hydrazines in Water	11161001	BLK	06/10/2011 19:28:00
		LCS	06/10/2011 20:16:00
		LCSD	06/10/2011 20:31:00
		6308068 UNSPK	06/10/2011 20:00:00
		6308069 MS	06/10/2011 20:47:00
		6308070 MSD	06/10/2011 21:03:00
		6308071	06/10/2011 21:50:00
		6308072	06/10/2011 22:06:00
		6308073	06/10/2011 22:21:00
		6308074	06/10/2011 22:37:00
		6308075	06/10/2011 22:53:00
		6308076	06/10/2011 23:09:00

Lancaster Laboratories

Quality Control Summary
Method Blank
Specialty Services Group
SDG: OLN70
Matrix: LIQUID

Fraction: Hydrazines by LC/MS/MS

11161001 / BLK Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Hydrazine	06/10/11	N.D.	ug/l	0.050	0.10
Methylhydrazine	06/10/11	N.D.	ug/l	0.25	0.50
1,1-Dimethylhydrazine	06/10/11	N.D.	ug/l	0.25	0.50

OLN70 0216

Lancaster Laboratories

Quality Control Summary
Matrix Spike/Matrix Spike Duplicate

SDG: OLN70
Matrix: LIQUID

Specialty Services Group
Fraction: Hydrazines by LC/MS/MS

UNSPK: 6308068 MS: 6308069 MSD: 6308070 **Analyte**	Batch: **11161001** (Sample number(s): 6308068-6308076) **Spike Added ug/l**	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Hydrazine	12	N.D.	11.89	11.63	99	97	70-130	2	25
Methylhydrazine	60	N.D.	44.38	43.52	74	73	70-130	2	25
1,1-Dimethylhydrazine	60	N.D.	57.18	55.22	95	92	70-130	3	25

OLN70 0211

Results are being reported on an as received basis.

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: OLN70
Matrix: LIQUID

Specialty Services Group
Fraction: Hydrazines by LC/MS/MS

LCS LCSD Analyte	Batch: **11161001** (Sample number(s): 6308068-6308076) Spike Added ug/l	LCS Conc ug/l	LCSD Conc ug/l	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Hydrazine	12	12.04	11.77	100	98	70-130	2	25
Methylhydrazine	60	59.03	60.54	98	101	70-130	3	25
1,1-Dimethylhydrazine	60	62.34	61.52	104	103	70-130	1	25

OLN70 8212

Sample Data

Lancaster Laboratories

LOQ/MDL Summary
Specialty Services Group

SDG: OLN70

Fraction: Hydrazines by LC/MS/MS

10342: Hydrazines in Water Analyte Name	Default MDL	Default LOQ	Units
Hydrazine	0.050	0.10	ug/l
Methylhydrazine	0.25	0.50	ug/l
1,1-Dimethylhydrazine	0.25	0.50	ug/l

OLN70 0214

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **Monomethylhydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
conditioner	A11161001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
conditioner	A11161001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SYS(MDL)	A11161001_03	74342.15	N/A	74342.155	N/A	0.23441ug/L	N/A	N/A
CAL1	A11161001_04	153010.26	N/A	153010.257	0.5	0.52137ug/L	4.27	N/A
CAL2	A11161001_05	272345.05	N/A	272345.052	1	0.95666ug/L	-4.33	N/A
CAL3	A11161001_06	691148.68	N/A	691148.680	2.5	2.48432ug/L	-0.63	N/A
CAL4	A11161001_07	1416596.04	N/A	1416596.036	5	5.13051ug/L	2.61	N/A
CAL5	A11161001_08	6734190.51	N/A	6734190.513	25	24.52734ug/L	-1.89	N/A
CAL6	A11161001_09	13620836.25	N/A	13620836.255	50	49.64756ug/L	-0.70	N/A
CAL7	A11161001_10	27543990.24	N/A	27543990.240	100	100.43463ug/L	0.43	N/A
CAL8	A11161001_11	34360113.83	N/A	34360113.827	125	125.29760ug/L	0.24	N/A
Conditioner	A11161001_12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A11161001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK (reagent)	A11161001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
CCV1	A11161001_15	710777.73	N/A	710777.726	2.5	2.55592ug/L	2.24	N/A
6308068(BKG)	A11161001_16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV/LCS	A11161001_17	16194042.80	N/A	16194042.799	N/A	59.03377ug/L	N/A	N/A
ICV/LCSD	A11161001_18	16606439.42	N/A	16606439.421	N/A	60.53805ug/L	N/A	N/A
6308069MS	A11161001_19	12176314.38	N/A	12176314.377	N/A	44.37842ug/L	N/A	N/A
6308070MSD	A11161001_20	11942312.08	N/A	11942312.078	N/A	43.52485ug/L	N/A	N/A
CCV2	A11161001_21	1359715.05	N/A	1359715.045	5	4.92303ug/L	-1.54	N/A
Conditioner	A11161001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308071	A11161001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308072	A11161001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308073	A11161001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308074	A11161001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308075	A11161001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308076	A11161001_28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309549	A11161001_29	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A11161001_30	7119193.60	N/A	7119193.602	25	25.93171ug/L	3.73	N/A
Conditioner	A11161001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309550	A11161001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309551	A11161001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309552	A11161001_34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309553	A11161001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309554	A11161001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310724	A11161001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001_38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310726	A11161001_39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310727	A11161001_40	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV4	A11161001_41	13584290.17	N/A	13584290.166	50	49.51425ug/L	-0.97	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **1,1-Dimethylhydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
conditioner	A11161001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
conditioner	A11161001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SYS(MDL)	A11161001_03	19994.21	N/A	19994.208	N/A	0.27917ug/L	N/A	N/A
CAL1	A11161001_04	44641.92	N/A	44641.921	0.5	0.48165ug/L	-3.67	N/A
CAL2	A11161001_05	114965.27	N/A	114965.270	1	1.05935ug/L	5.94	N/A
CAL3	A11161001_06	300936.96	N/A	300936.963	2.5	2.58711ug/L	3.48	N/A
CAL4	A11161001_07	574908.64	N/A	574908.644	5	4.83779ug/L	-3.24	N/A
CAL5	A11161001_08	2922053.79	N/A	2922053.788	25	24.11956ug/L	-3.52	N/A
CAL6	A11161001_09	6115447.27	N/A	6115447.273	50	50.35326ug/L	0.71	N/A
CAL7	A11161001_10	12074114.06	N/A	12074114.063	100	99.30366ug/L	-0.70	N/A
CAL8	A11161001_11	15355182.58	N/A	15355182.581	125	126.25761ug/L	1.01	N/A
Conditioner	A11161001_12	15794.95	N/A	15794.952	N/A	0.24467ug/L	N/A	N/A
Conditioner	A11161001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK (reagent)	A11161001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
CCV1	A11161001_15	281290.71	N/A	281290.711	2.5	2.42572ug/L	-2.97	N/A
6308068(BKG)	A11161001_16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV/LCS	A11161001_17	7573987.07	N/A	7573987.066	N/A	62.33516ug/L	N/A	N/A
ICV/LCSD	A11161001_18	7474393.92	N/A	7474393.916	N/A	61.51700ug/L	N/A	N/A
6308069MS	A11161001_19	6946046.93	N/A	6946046.930	N/A	57.17663ug/L	N/A	N/A
6308070MSD	A11161001_20	6708207.99	N/A	6708207.989	N/A	55.22279ug/L	N/A	N/A
CCV2	A11161001_21	589400.90	N/A	589400.902	5	4.95684ug/L	-0.86	N/A
Conditioner	A11161001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308071	A11161001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308072	A11161001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308073	A11161001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308074	A11161001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308075	A11161001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308076	A11161001_28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309549	A11161001_29	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A11161001_30	2965073.86	N/A	2965073.856	25	24.47297ug/L	-2.11	N/A
Conditioner	A11161001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309550	A11161001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309551	A11161001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309552	A11161001_34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309553	A11161001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309554	A11161001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310724	A11161001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001_38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310726	A11161001_39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310727	A11161001_40	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV4	A11161001_41	5860591.47	N/A	5860591.466	50	48.25963ug/L	-3.48	N/A

Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Component Name: **Hydrazine**

Summary of Quan Results

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
conditioner	A11161001_01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
conditioner	A11161001_02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SYS(MDL)	A11161001_03	6327.78	N/A	6327.782	N/A	0.05992ug/L	N/A	N/A
CAL1	A11161001_04	12083.07	N/A	12083.074	0.1	0.10277ug/L	2.77	N/A
CAL2	A11161001_05	27583.66	N/A	27583.657	0.2	0.21818ug/L	9.09	N/A
CAL3	A11161001_06	61282.56	N/A	61282.560	0.5	0.46908ug/L	-6.18	N/A
CAL4	A11161001_07	124589.91	N/A	124589.912	1	0.94043ug/L	-5.96	N/A
CAL5	A11161001_08	662784.46	N/A	662784.461	5	4.94749ug/L	-1.05	N/A
CAL6	A11161001_09	1367424.96	N/A	1367424.963	10	10.19380ug/L	1.94	N/A
CAL7	A11161001_10	2641166.41	N/A	2641166.406	20	19.67729ug/L	-1.61	N/A
CAL8	A11161001_11	3389775.58	N/A	3389775.575	25	25.25096ug/L	1.00	N/A
Conditioner	A11161001_12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Conditioner	A11161001_13	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BLK (reagent)	A11161001_14	N/A	N/A	N/A	0	N/A	N/A	N/A
CCV1	A11161001_15	64481.08	N/A	64481.083	0.5	0.49290ug/L	-1.42	N/A
6308068(BKG)	A11161001_16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICV/LCS	A11161001_17	1615910.44	N/A	1615910.437	N/A	12.04387ug/L	N/A	N/A
ICV/LCSD	A11161001_18	1578813.77	N/A	1578813.767	N/A	11.76767ug/L	N/A	N/A
6308069MS	A11161001_19	1594689.95	N/A	1594689.950	N/A	11.88588ug/L	N/A	N/A
6308070MSD	A11161001_20	1560290.39	N/A	1560290.387	N/A	11.62976ug/L	N/A	N/A
CCV2	A11161001_21	130730.53	N/A	130730.530	1	0.98615ug/L	-1.39	N/A
Conditioner	A11161001_22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308071	A11161001_23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308072	A11161001_24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308073	A11161001_25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308074	A11161001_26	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308075	A11161001_27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6308076	A11161001_28	8444.73	N/A	8444.726	N/A	0.07568ug/L	N/A	N/A
6309549	A11161001_29	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV3	A11161001_30	666098.45	N/A	666098.454	5	4.97216ug/L	-0.56	N/A
Conditioner	A11161001_31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309550	A11161001_32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309551	A11161001_33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309552	A11161001_34	6279.68	N/A	6279.678	N/A	0.05956ug/L	N/A	N/A
6309553	A11161001_35	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6309554	A11161001_36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310724	A11161001_37	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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LCMSMS ANALYSIS REPORT

Sample ID	Data File Name	Area	ISTD Area	Area Ratio	Specified Amount	Calculated Amount	% Diff	Excluded
6310725	A11161001_38	4446.33	N/A	4446.331	N/A	0.04591ug/L < MDL	N/A	N/A
6310726	A11161001_39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6310727	A11161001_40	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CCV4	A11161001_41	1421680.51	N/A	1421680.508	10	10.59775ug/L	5.98	N/A

Mq 2628, 6/13/11

GLN70 0228

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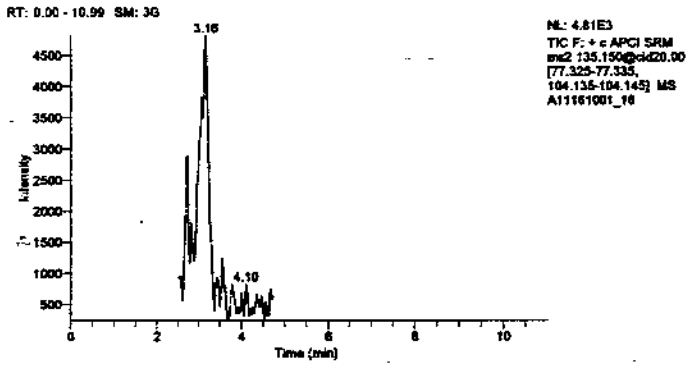
LCMSMS ANALYSIS REPORT

Sample Name:	6308068(BKG)		
Data File:	A11161001_16	Acquisition Date:	06/10/11 08:00:15 PM
Sample Type:	Unknown	Sample ID:	6308068(BKG)
Run Time(min):	10.98	Vial:	a:16
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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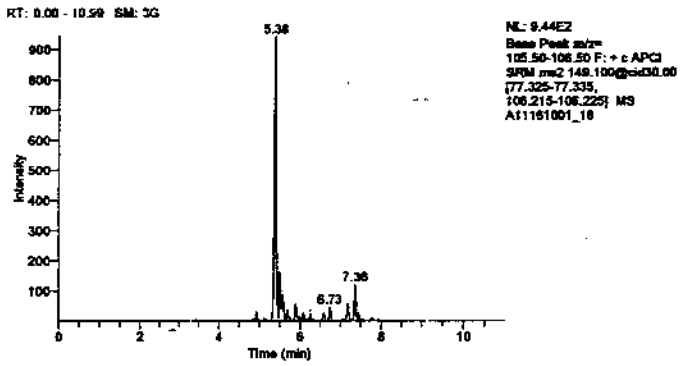

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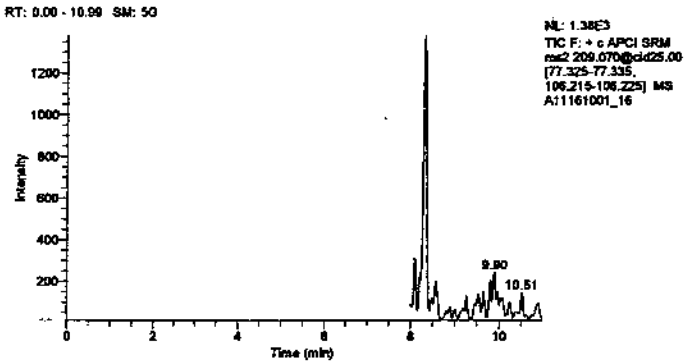

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OLNTB #221

6/14/2011

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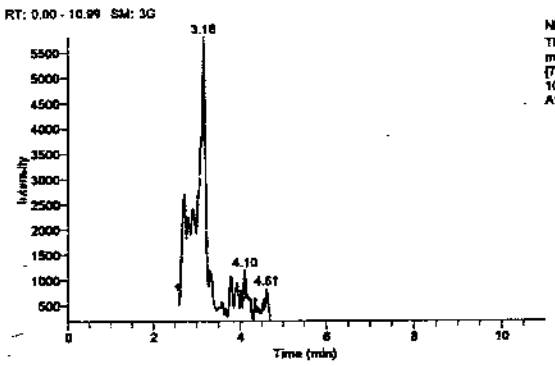
LCMSMS ANALYSIS REPORT

Sample Name:	6308071		
Data File:	A11161001_23	Acquisition Date:	06/10/11 09:50:26 PM
Sample Type:	Unknown	Sample ID:	6308071
Run Time(min):	10.98	Vial:	a:17
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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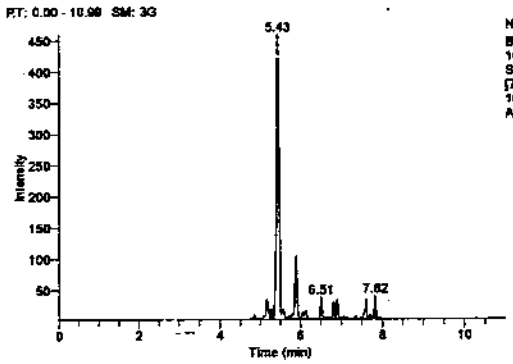

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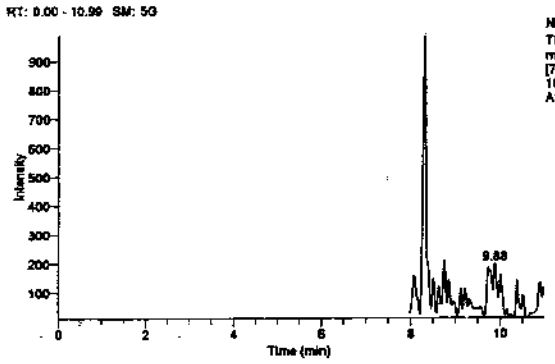

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OLH70. 0222

6/14/2011

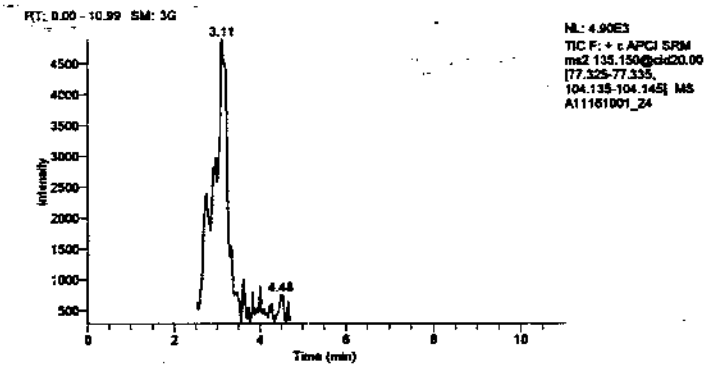
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6308072		
Data File:	A11161001_24	Acquisition Date:	06/10/11 10:06:12 PM
Sample Type:	Unknown	Sample ID:	6308072
Run Time(min):	10.98	Vial:	a:18
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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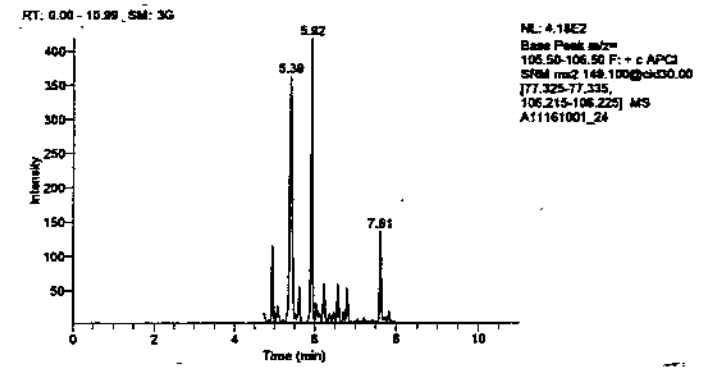

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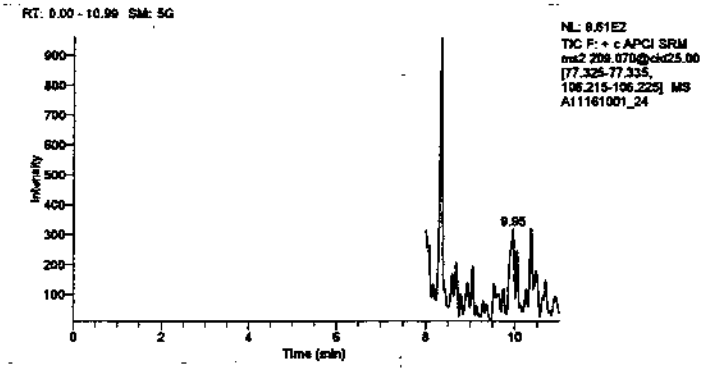

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OLN78 8223

6/14/2011

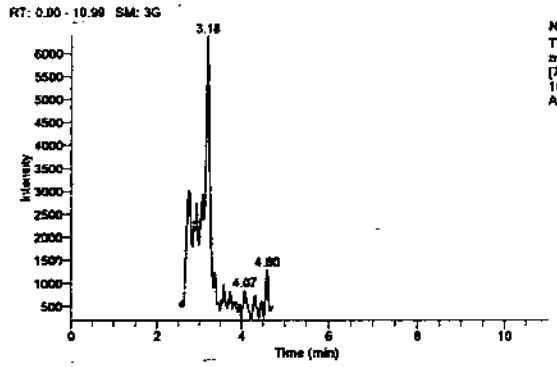
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6308073		
Data File:	A11161001_25	Acquisition Date:	06/10/11 10:21:57 PM
Sample Type:	Unknown	Sample ID:	6308073
Run Time(min):	10.98	Vial:	a:19
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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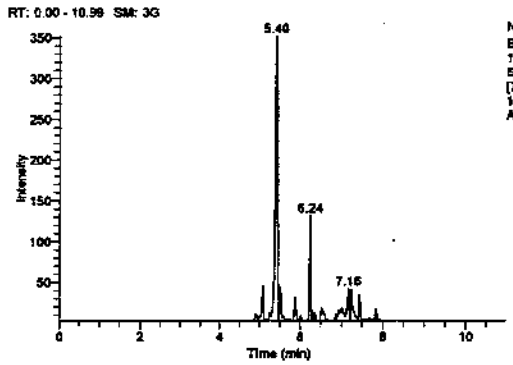

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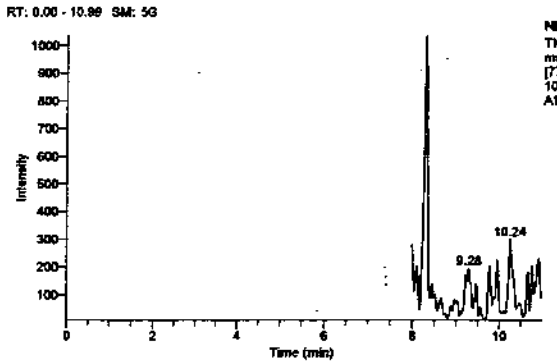

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Monday, June 13, 2011, 11:20:53

6/14/20

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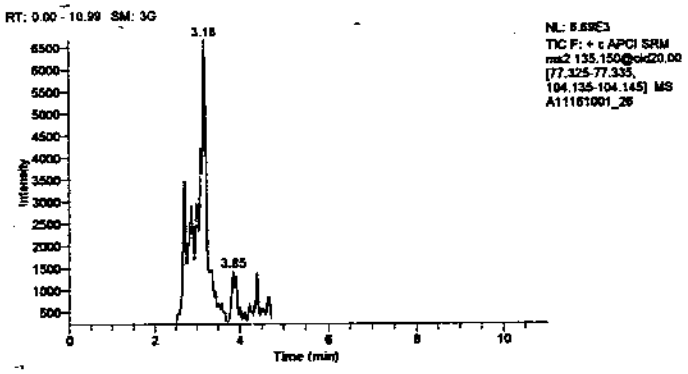
LCMSMS ANALYSIS REPORT

Sample Name:	6308074		
Data File:	A11161001_26	Acquisition Date:	06/10/11 10:37:43 PM
Sample Type:	Unknown	Sample ID:	6308074
Run Time(min):	10.99	Vial:	a:20
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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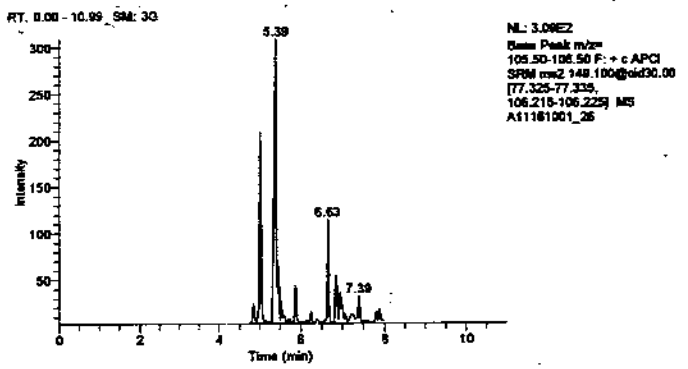

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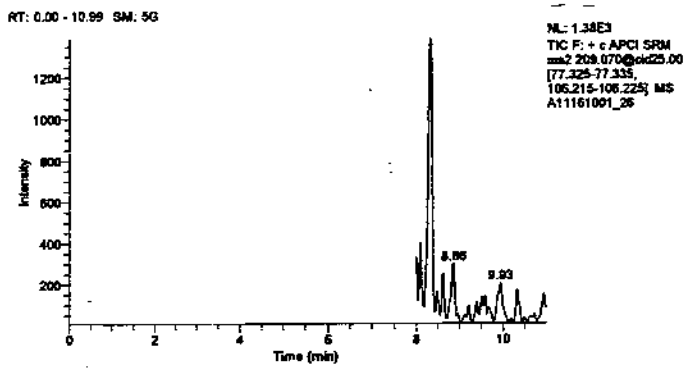

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QLN70 6225

Monday, June 13, 2011, 11:20:54

6/14/2011

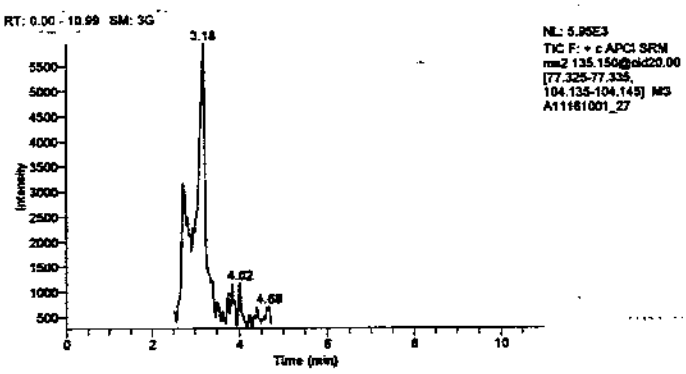
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6308075		
Data File:	A11161001_27	Acquisition Date:	06/10/11 10:53:29 PM
Sample Type:	Unknown	Sample ID:	6308075
Run Time(min):	10.98	Vial:	a:21
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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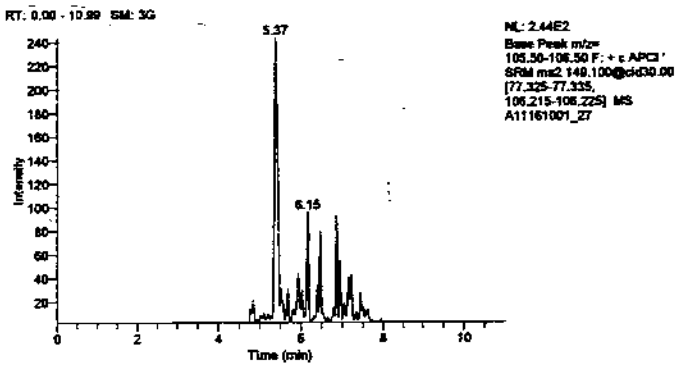

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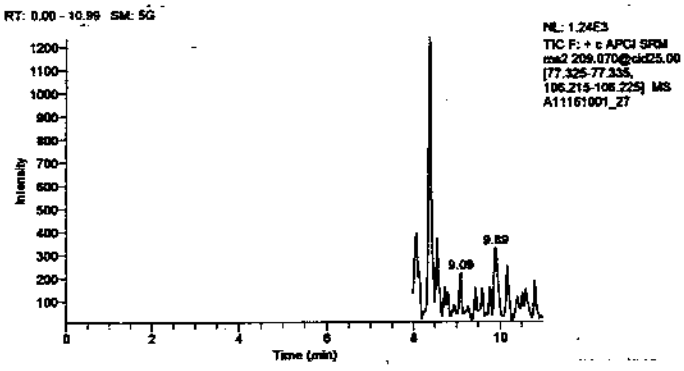

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OLM76 0226

6/14

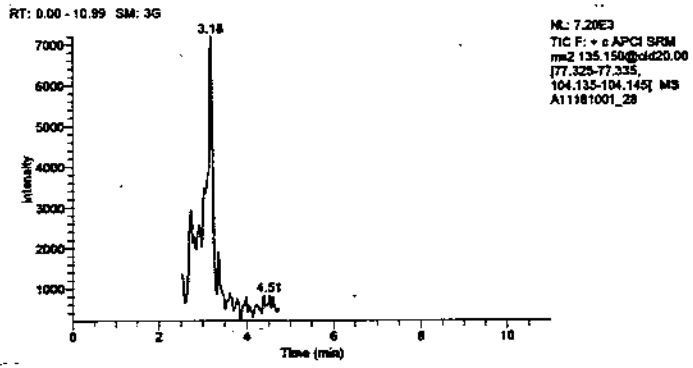
Lancaster Laboratories

LCMSMS ANALYSIS REPORT

Sample Name:	6308076		
Data File:	A11161001_28	Acquisition Date:	06/10/11 11:09:13 PM
Sample Type:	Unknown	Sample ID:	6308076
Run Time(min):	10.99	Vial:	a:22
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A
Hydrazine	0.076	ug/L	8444.726	8.41



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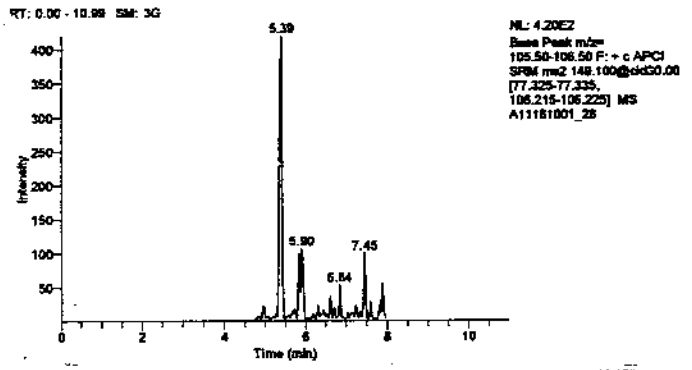

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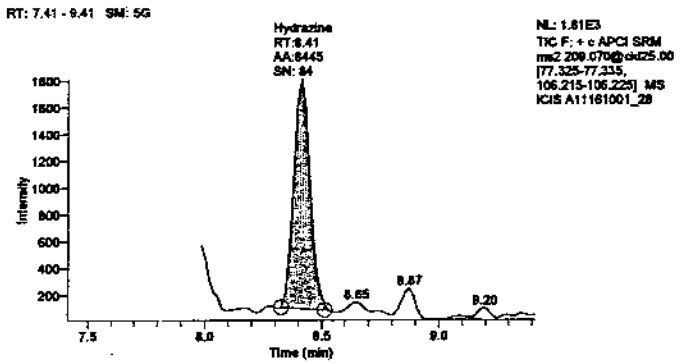

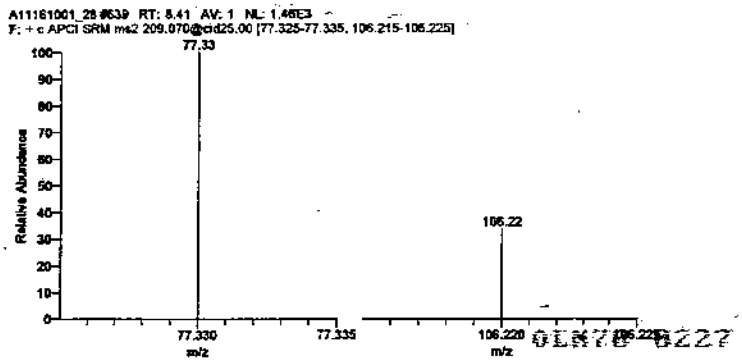

Monday, June 13, 2011, 11:20:56

8-1/12
6/14/2011

Standards Data

Lancaster Laboratories

Sequence Table

File Name	Sample ID	Sample Type	Level	Vial	Inj Vol	Dil Factor	Path	Inst Method	Proc Method
A11161001_01	conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_02	conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_03	SYS(MDL)	Unknown	N/A	A:2	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_04	CAL1	Std Bracket	1	A:3	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_05	CAL2	Std Bracket	2	A:4	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_06	CAL3	Std Bracket	3	A:5	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_07	CAL4	Std Bracket	4	A:6	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_08	CAL5	Std Bracket	5	A:7	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_09	CAL6	Std Bracket	6	A:8	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_10	CAL7	Std Bracket	7	A:9	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_11	CAL8	Std Bracket	8	A:10	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_12	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_13	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_14	BLK (reagent)	Blank	N/A	a:11	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_15	CCV1	QC	1	a:5	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_16	6308068(BKG)	Unknown	N/A	a:16	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_17	ICV/LCS	Unknown	N/A	a:12	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_18	ICV/LCSD	Unknown	N/A	a:13	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_19	6308069MS	Unknown	N/A	a:14	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_20	6308070MSD	Unknown	N/A	a:15	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_21	CCV2	QC	2	a:6	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_22	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz

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File Name	Sample ID	Sample Type	Level	Vial	Inj Vol	Dil Factor	Path	Inst Method	Proc Method
A11161001_23	6308071	Unknown	N/A	a:17	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_24	6308072	Unknown	N/A	a:18	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_25	6308073	Unknown	N/A	a:19	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_26	6308074	Unknown	N/A	a:20	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_27	6308075	Unknown	N/A	a:21	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_28	6308076	Unknown	N/A	a:22	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_29	6309549	Unknown	N/A	a:23	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_30	CCV3	QC	3	a:7	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_31	Conditioner	Unknown	N/A	A:1	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_32	6309550	Unknown	N/A	a:24	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_33	6309551	Unknown	N/A	a:25	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_34	6309552	Unknown	N/A	a:26	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_35	6309553	Unknown	N/A	a:27	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_36	6309554	Unknown	N/A	a:28	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_37	6310724	Unknown	N/A	a:29	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_38	6310725	Unknown	N/A	a:30	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_39	6310726	Unknown	N/A	a:31	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_40	6310727	Unknown	N/A	a:32	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz
A11161001_41	CCV4	QC	4	A:8	5.0	1.000	C:\XCalibur\Hydrazine Analysis\2011June	C:\XCalibur\Hydrazine Analysis\Hydraz_02	C:\XCalibur\Hydrazine Analysis\Processing Methods\Hydraz

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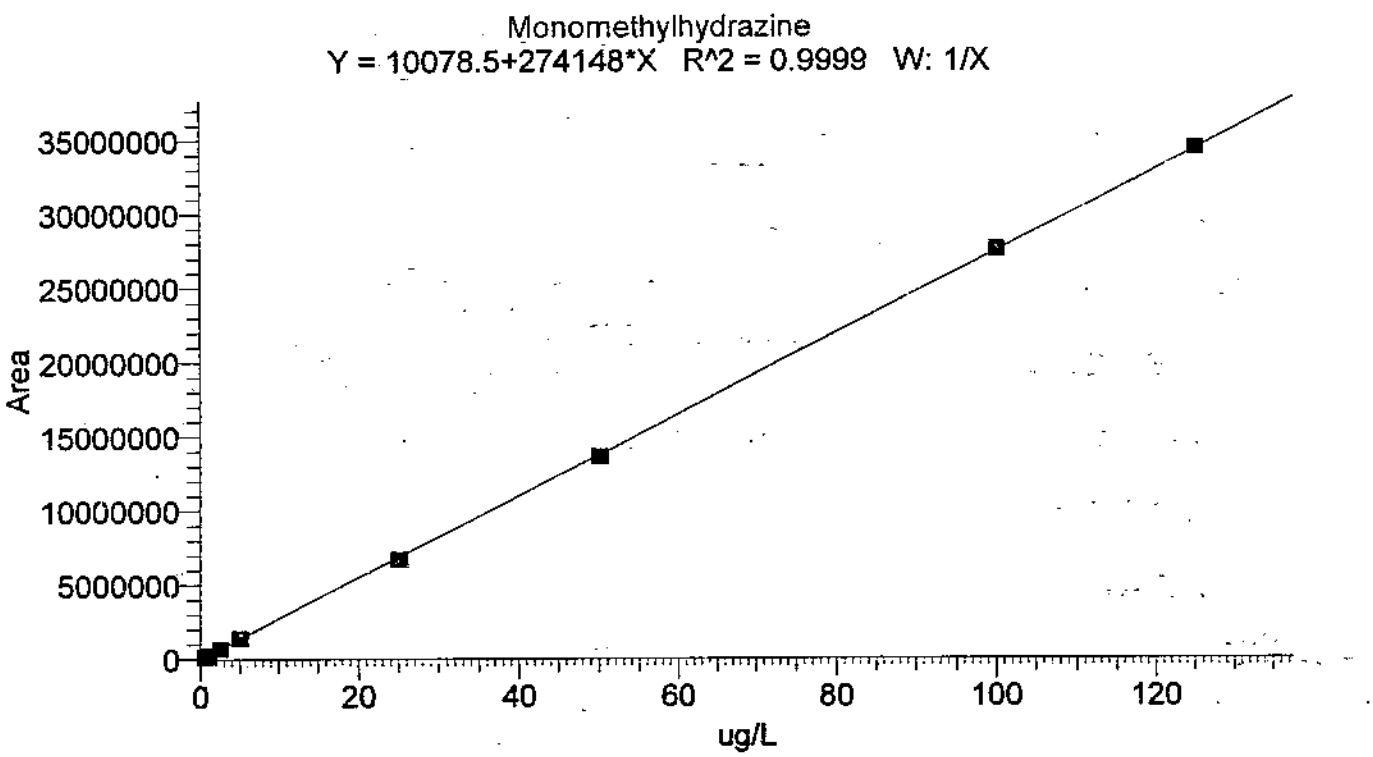
LCMSMS ANALYSIS REPORT

Component Name: **Monomethylhydrazine**



Identification		Component Name:	Monomethylhydrazine
Filter:	+ c APCI SRM ms2 135.15@cid20.00 [77.33-77.33, 104.14-104.15]	1st Trace Type:	TIC
2nd Trace Type:	N/A	Mass Range 1 (m/z):	
Mass Range 2 (m/z):		Wavelength Range 2 (nm):	N/A
Base Peak(BP):			
Retention Time		Expected RT (min):	3.80000
Window (sec):	30.00000	View Width (min):	2.50000
RT Reference:	No	Adjust Expected RT:	No
Adjust Using:	N/A		
Detection Options		Peak Detection Algorithm:	ICIS
		ICIS Peak Integration	
ICIS Smoothing Points:	3	Baseline Window:	75
Area Noise Factor:	5	Peak Noise Factor:	10
ICIS Constrain Peak Width:	No	ICIS Peak Height (%):	N/A
ICIS Tailing Factor:	N/A		
ICIS Peak Detection		ICIS Identify By:	Nearest RT
ICIS Minimum Peak Height (S/N):	50.0	ICIS Ion Ratio Confirmation:	N/A
ICIS Window %:	N/A	ICIS Qualifier Ion Coelution (min):	N/A
		ICIS Spectrum Thresholds	
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match:	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window:	0
		Calibration	
Component Type:	Target Compound	%RSD Calculation Method:	Use calculated amounts
		Internal Standard	
ISTD Amount:	N/A	ISTD Units:	N/A
		Target Compounds	
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels:	4
		Peak Purity Options	
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.500
2	1.000
3	2.500
4	5.000
5	25.000
6	50.000
7	100.000
8	125.000

Component QC Level Table

QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A11161001_04	0.52137ug/L	153010.26	4.27
CAL2	A11161001_05	0.95666ug/L	272345.05	-4.33
CAL3	A11161001_06	2.48432ug/L	691148.68	-0.63
CAL4	A11161001_07	5.13051ug/L	1416596.04	2.61
CAL5	A11161001_08	24.52734ug/L	6734190.51	-1.89
CAL6	A11161001_09	49.64756ug/L	13620836.25	-0.70
CAL7	A11161001_10	100.43463ug/L	27543990.24	0.43
CAL8	A11161001_11	125.29760ug/L	34360113.83	0.24
CCV1	A11161001_15	2.55592ug/L	710777.73	2.24
CCV2	A11161001_21	4.92303ug/L	1359715.05	-1.54
CCV3	A11161001_30	25.93171ug/L	7119193.60	3.73
CCV4	A11161001_41	49.51425ug/L	13584290.17	-0.97

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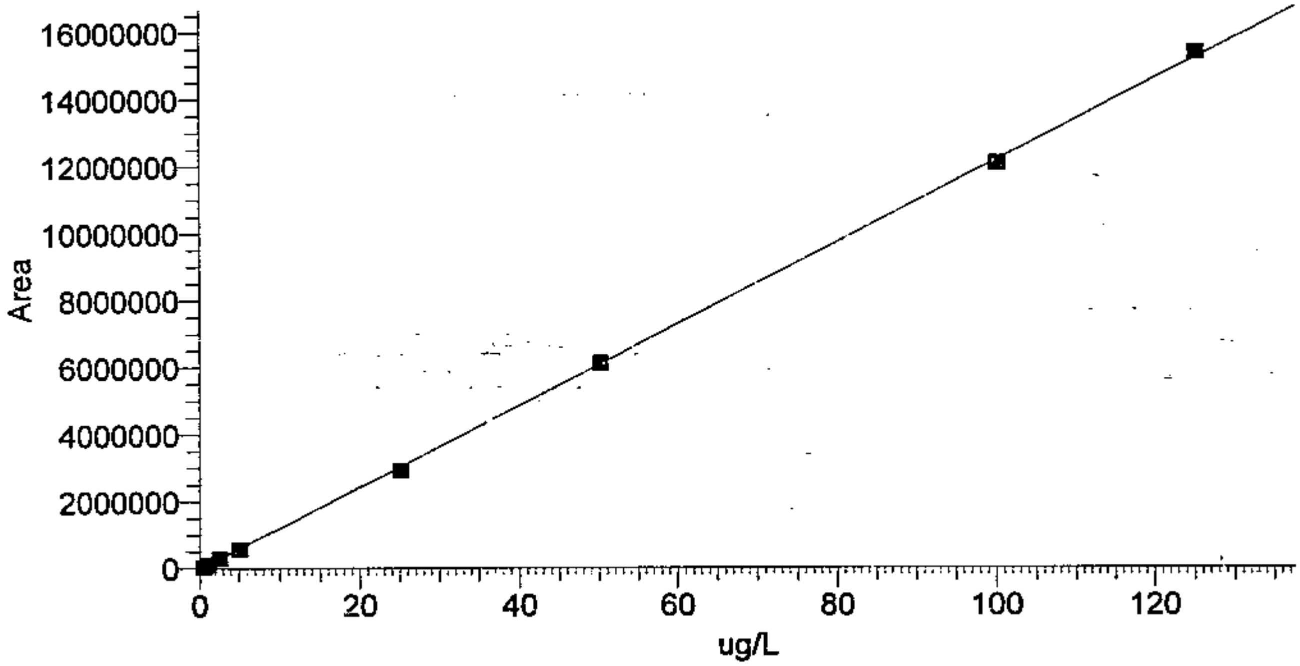
LCMSMS ANALYSIS REPORT

Component Name: **1,1-Dimethylhydrazine**



Identification		Component Name:	1,1-Dimethylhydrazine
Filter:	+ c APCI SRM ms2 149.10@cid30.00 [77.33-77.33, 106.22-106.22]	1st Trace Type:	Base Peak
2nd Trace Type:	N/A	Mass Range 1 (m/z):	
Mass Range 2 (m/z):		Wavelength Range 2 (nm):	N/A
Base Peak(BP):	106		
Retention Time		Expected RT (min):	5.87000
Window (sec):	30.00000	View Width (min):	2.50000
RT Reference:	No	Adjust Expected RT:	No
Adjust Using:	N/A		
Detection Options		Peak Detection Algorithm:	ICIS
		ICIS Peak Integration	
ICIS Smoothing Points:	3	Baseline Window:	75
Area Noise Factor:	5	Peak Noise Factor:	10
ICIS Constrain Peak Width:	No	ICIS Peak Height (%):	N/A
ICIS Tailing Factor:	N/A		
ICIS Peak Detection		ICIS Identify By:	Nearest RT
ICIS Minimum Peak Height (S/N):	50.0	ICIS Ion Ratio Confirmation:	N/A
ICIS Window %:	N/A	ICIS Qualifier Ion Coelution (min):	N/A
		ICIS Spectrum Thresholds	
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match:	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window:	0
		Calibration	
Component Type:	Target Compound	%RSD Calculation Method:	Use calculated amounts
		Internal Standard	
ISTD Amount:	N/A	ISTD Units:	N/A
		Target Compounds	
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels:	4
		Peak Purity Options	
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.500
2	1.000
3	2.500
4	5.000
5	25.000
6	50.000
7	100.000
8	125.000

Component QC Level Table

QC Level	Amount
1	2.500
2	5.000
3	25.000
4	50.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A11161001_04	0.48165ug/L	44641.92	-3.67
CAL2	A11161001_05	1.05935ug/L	114965.27	5.94
CAL3	A11161001_06	2.58711ug/L	300936.96	3.48
CAL4	A11161001_07	4.83779ug/L	574908.64	-3.24
CAL5	A11161001_08	24.11956ug/L	2922053.79	-3.52
CAL6	A11161001_09	50.35326ug/L	6115447.27	0.71
CAL7	A11161001_10	99.30366ug/L	12074114.06	-0.70
CAL8	A11161001_11	126.25761ug/L	15355182.58	1.01
CCV1	A11161001_15	2.42572ug/L	281290.71	-2.97
CCV2	A11161001_21	4.95684ug/L	589400.90	-0.86
CCV3	A11161001_30	24.47297ug/L	2965073.86	-2.11
CCV4	A11161001_41	48.25963ug/L	5860591.47	-3.48

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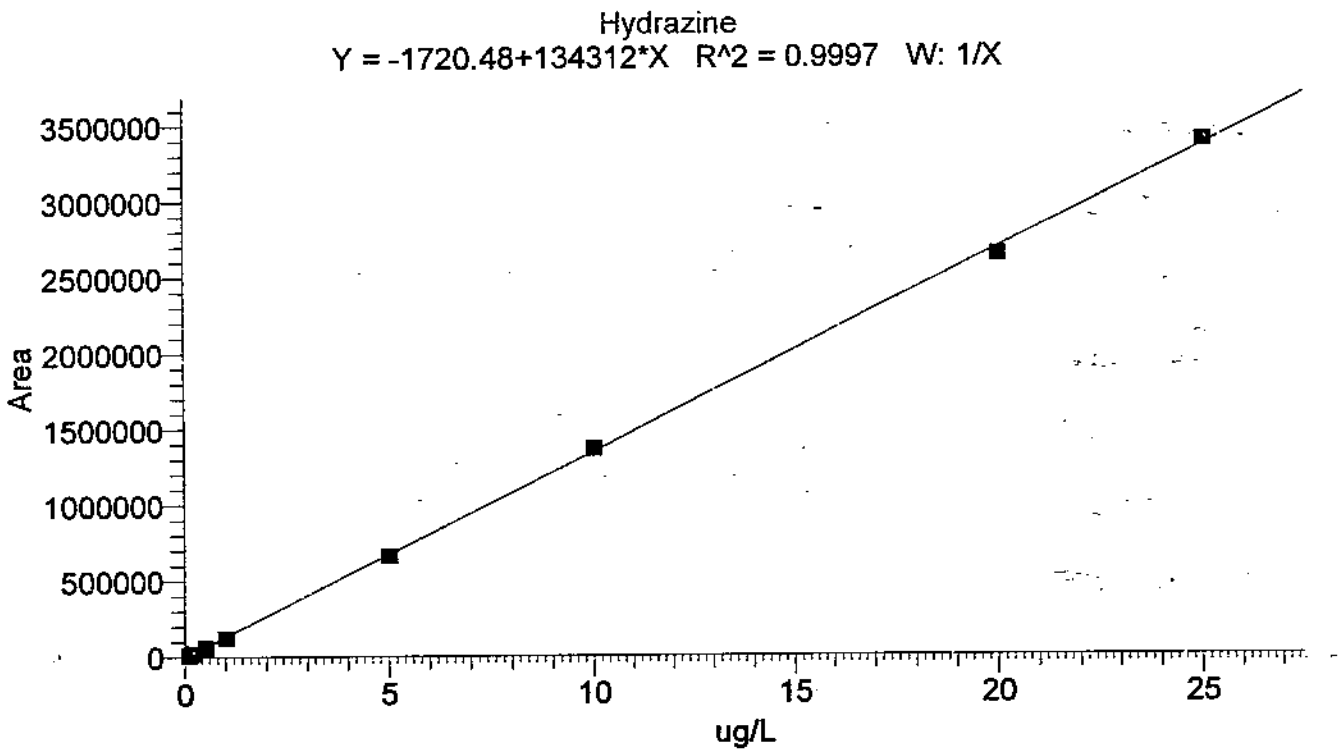
LCMSMS ANALYSIS REPORT

Component Name: **Hydrazine**



Identification		Component Name:	Hydrazine
Filter:	+ c APCI SRM ms2 209.07@cid25.00 [77.33-77.33, 106.22-106.22]	1st Trace Type:	TIC
2nd Trace Type:	N/A	Mass Range 1 (m/z):	
Mass Range 2 (m/z):		Wavelength Range 2 (nm):	N/A
Base Peak(BP):			
Retention Time		Expected RT (min):	8.31000
Window (sec):	30.00000	View Width (min):	2.00000
RT Reference:	No	Adjust Expected RT:	No
Adjust Using:	N/A		
Detection Options		Peak Detection Algorithm:	ICIS
		ICIS Peak Integration	
ICIS Smoothing Points:	5	Baseline Window:	75
Area Noise Factor:	5	Peak Noise Factor:	10
ICIS Constrain Peak Width:	No	ICIS Peak Height (%):	N/A
ICIS Tailing Factor:	N/A		
ICIS Peak Detection		ICIS Identify By:	Nearest RT
ICIS Minimum Peak Height (S/N):	50.0	ICIS Ion Ratio Confirmation:	N/A
ICIS Window %:	N/A	ICIS Qualifier Ion Coelution (min):	N/A
		ICIS Spectrum Thresholds	
ICIS Forward:	N/A	ICIS Reverse:	N/A
ICIS Match:	N/A		
ICIS Advanced Parameters		Noise Method:	Incos
Minimum Peak Width:	3	Multiplet Resolution:	10
Area Tail Extension:	5	Area Scan Window:	0
		Calibration	
Component Type:	Target Compound	%RSD Calculation Method:	Use calculated amounts
		Internal Standard	
ISTD Amount:	N/A	ISTD Units:	N/A
		Target Compounds	
ISTD:		Weighting:	OneOverX
Origin:	IgnoreOrigin	Response:	Area
Calibration Curve:	Linear	Target Units:	ug/L
Number of Cal. Levels:	8	Number of QC Levels:	4
		Peak Purity Options	
Scan Threshold (mAU):	N/A	Peak Coverage (%):	N/A
Limit ScanRange (nm):	N/A		

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LCMSMS ANALYSIS REPORT

Component Cal Level Table

Cal Level	Amount
1	0.100
2	0.200
3	0.500
4	1.000
5	5.000
6	10.000
7	20.000
8	25.000

Component QC Level Table

QC Level	Amount
1	0.500
2	1.000
3	5.000
4	10.000

ICV & CCV Result Table

Sample ID	Data File Name	Calculated Amount	Area	% Diff
CAL1	A11161001_04	0.10277ug/L	12083.07	2.77
CAL2	A11161001_05	0.21818ug/L	27583.66	9.09
CAL3	A11161001_06	0.46908ug/L	61282.56	-6.18
CAL4	A11161001_07	0.94043ug/L	124589.91	-5.96
CAL5	A11161001_08	4.94749ug/L	662784.46	-1.05
CAL6	A11161001_09	10.19380ug/L	1367424.96	1.94
CAL7	A11161001_10	19.67729ug/L	2641166.41	-1.61
CAL8	A11161001_11	25.25096ug/L	3389775.58	1.00
CCV1	A11161001_15	0.49290ug/L	64481.08	-1.42
CCV2	A11161001_21	0.98615ug/L	130730.53	-1.39
CCV3	A11161001_30	4.97216ug/L	666098.45	-0.56
CCV4	A11161001_41	10.59775ug/L	1421680.51	5.98

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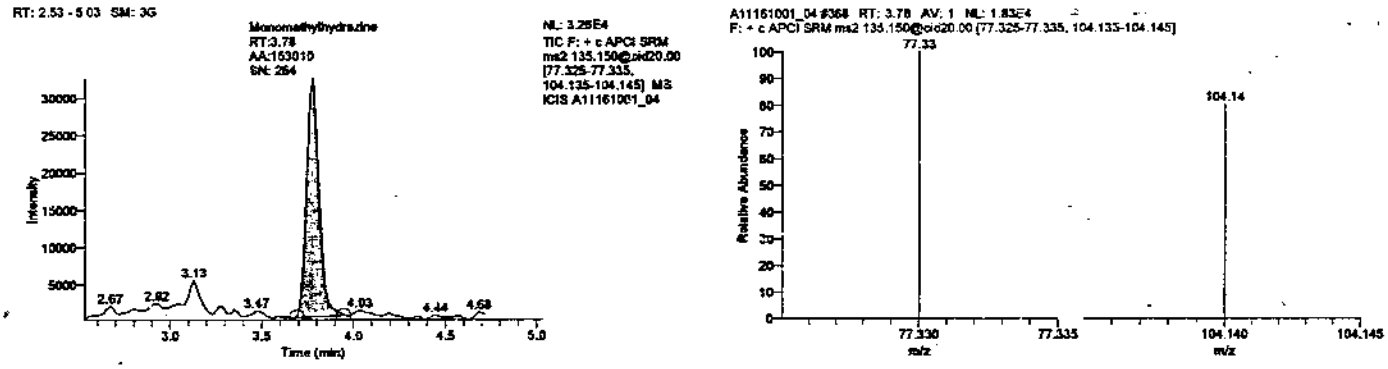
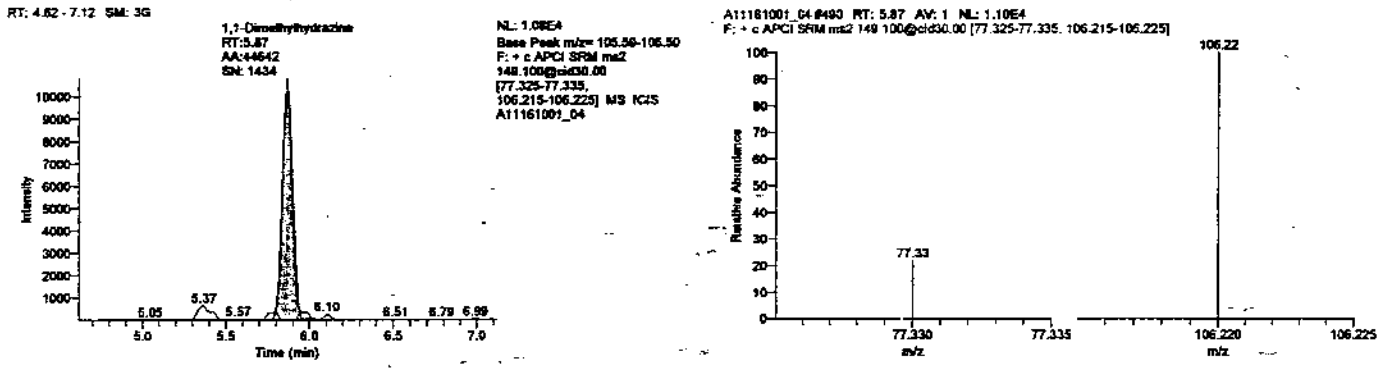
LCMSMS ANALYSIS REPORT

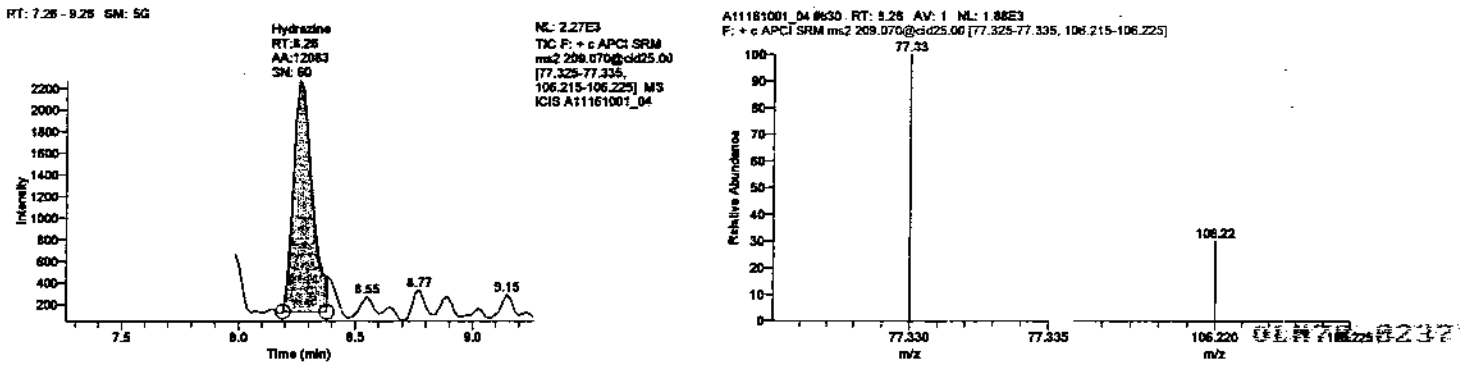
Sample Name:	CAL1		
Data File:	A11161001_04	Acquisition Date:	06/10/11 04:51:27 PM
Sample Type:	Std Bracket	Sample ID:	CAL1
Run Time(min):	10.99	Vial:	A:3
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.521	ug/L	153010.257	3.78
1,1-Dimethylhydrazine	0.482	ug/L	44641.921	5.87
Hydrazine	0.103	ug/L	12083.074	8.26







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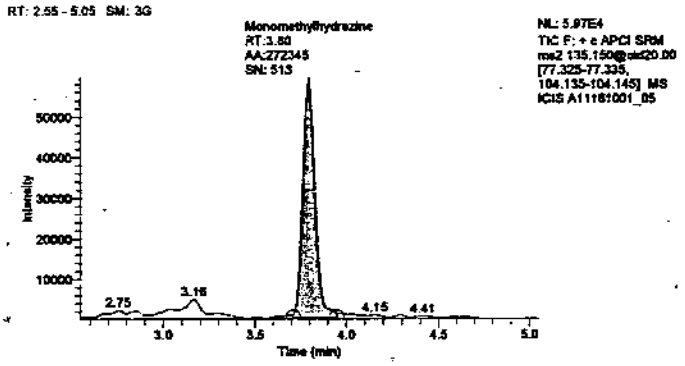
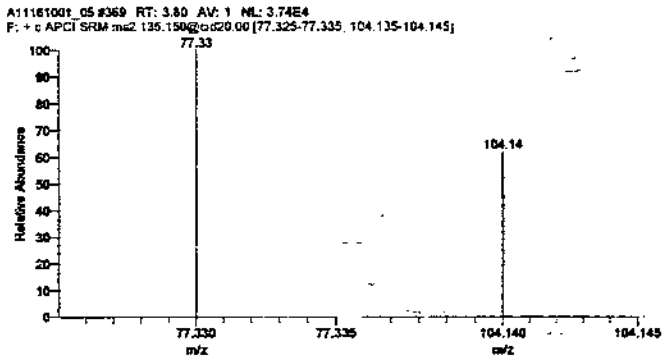
LCMSMS ANALYSIS REPORT

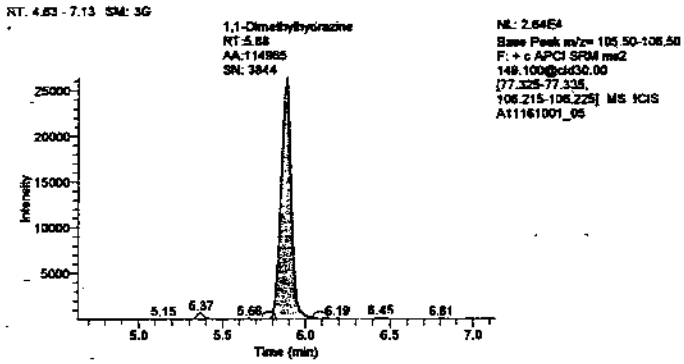
Sample Name:	CAL2		
Data File:	A11161001_05	Acquisition Date:	06/10/11 05:07:11 PM
Sample Type:	Std Bracket	Sample ID:	CAL2
Run Time(min):	10.98	Vial:	A:4
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

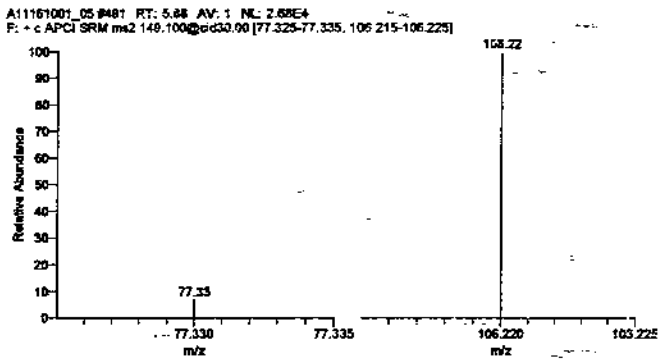
Quan Peak Table

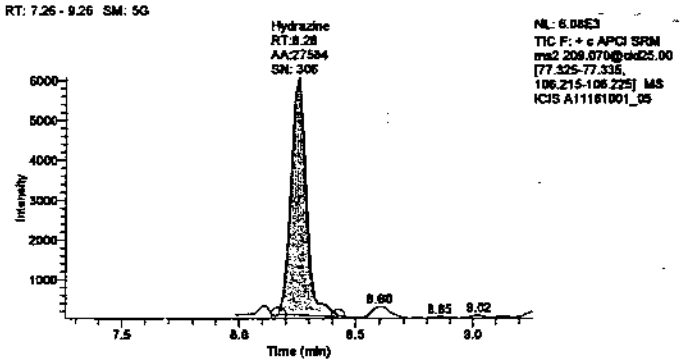
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.957	ug/L	272345.052	3.80
1,1-Dimethylhydrazine	1.059	ug/L	114965.270	5.88
Hydrazine	0.218	ug/L	27583.657	8.26

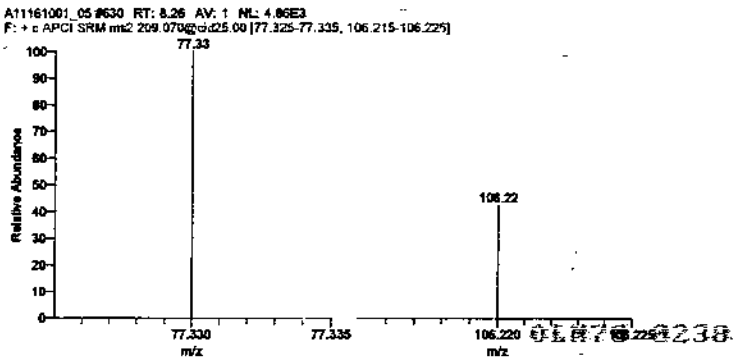












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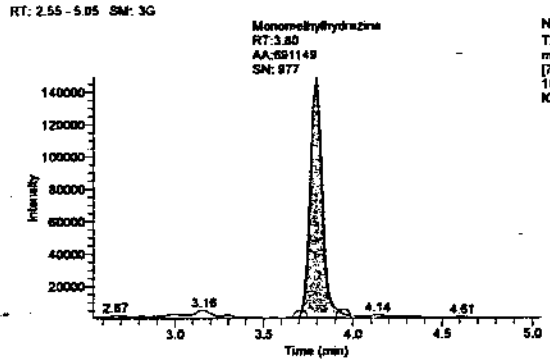
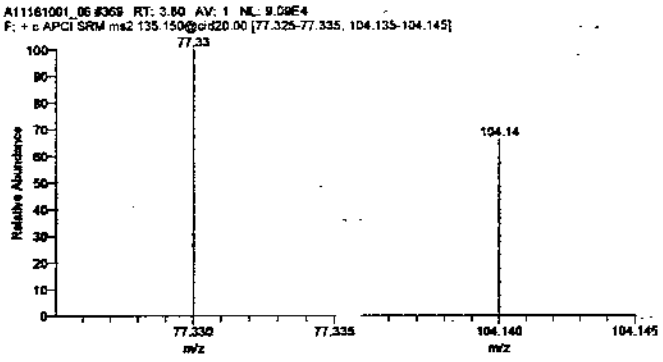
LCMSMS ANALYSIS REPORT

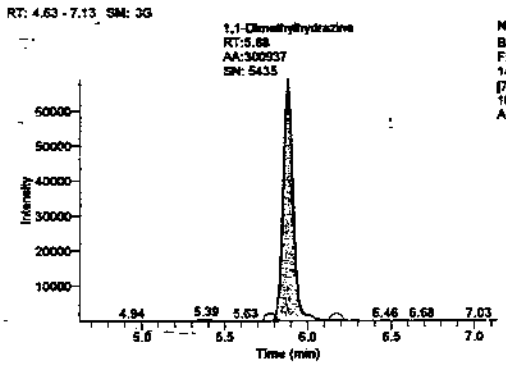
Sample Name:	CAL3		
Data File:	A11161001_06	Acquisition Date:	06/10/11 05:22:54 PM
Sample Type:	Std Bracket	Sample ID:	CAL3
Run Time(min):	10.99	Vial:	A:5
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

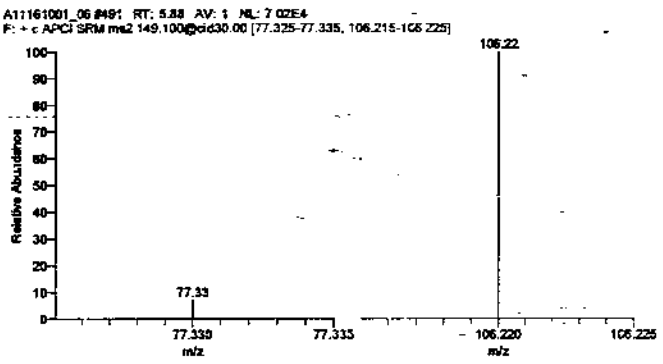
Quan Peak Table

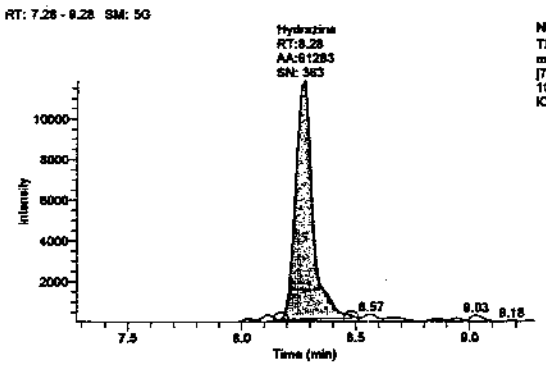
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	2.484	ug/L	691148.680	3.80
1,1-Dimethylhydrazine	2.587	ug/L	300936.963	5.88
Hydrazine	0.469	ug/L	61282.560	8.28

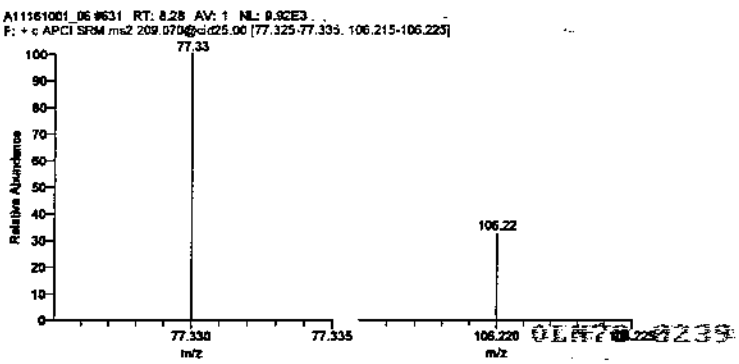












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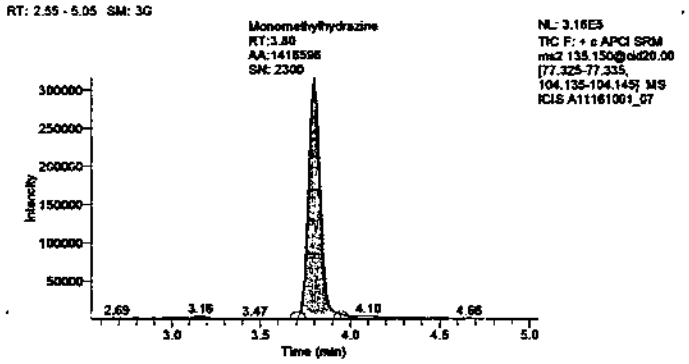
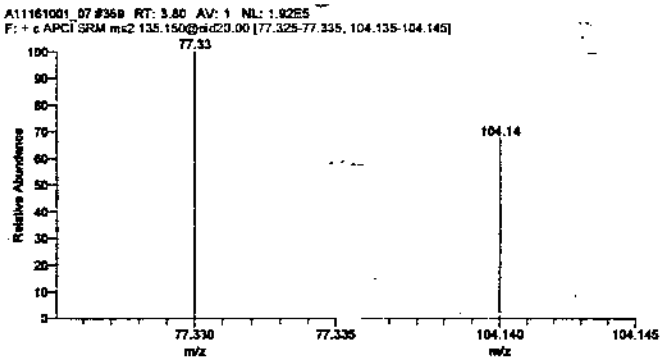
LCMSMS ANALYSIS REPORT

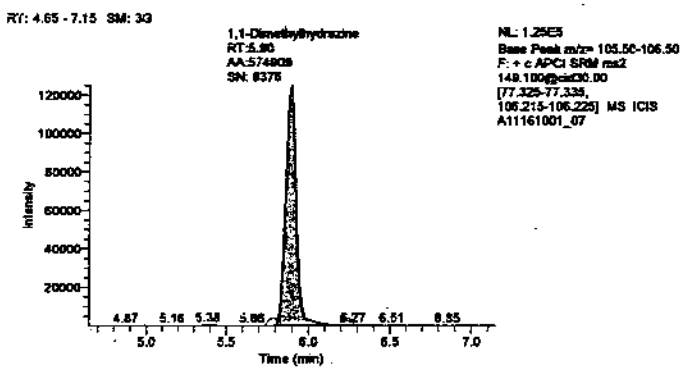
Sample Name:	CAL4		
Data File:	A11161001_07	Acquisition Date:	06/10/11 05:38:38 PM
Sample Type:	Std Bracket	Sample ID:	CAL4
Run Time(min):	10.98	Vial:	A:6
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

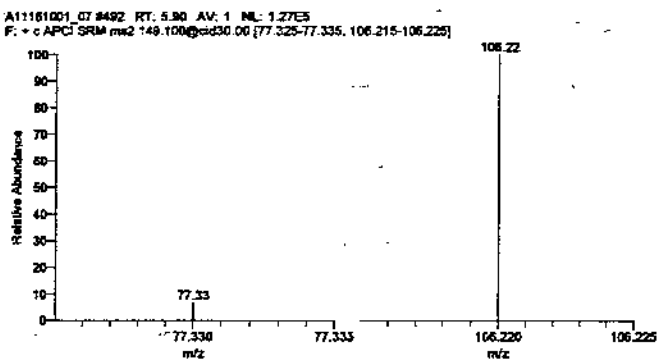
Quan Peak Table

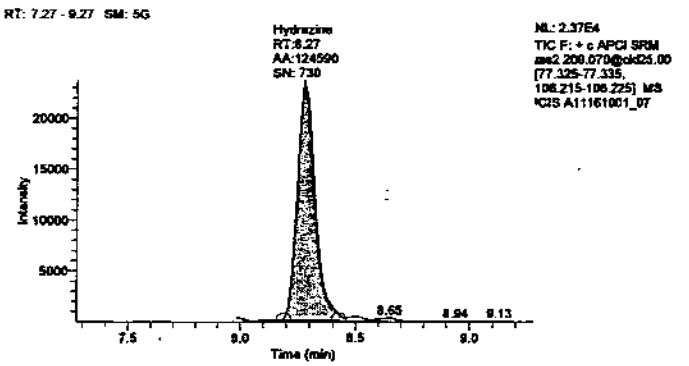
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	5.131	ug/L	1416596.036	3.80
1,1-Dimethylhydrazine	4.838	ug/L	574908.644	5.90
Hydrazine	0.940	ug/L	124589.912	8.27

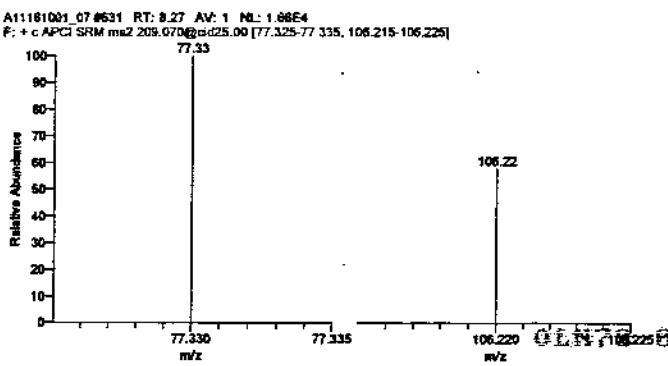












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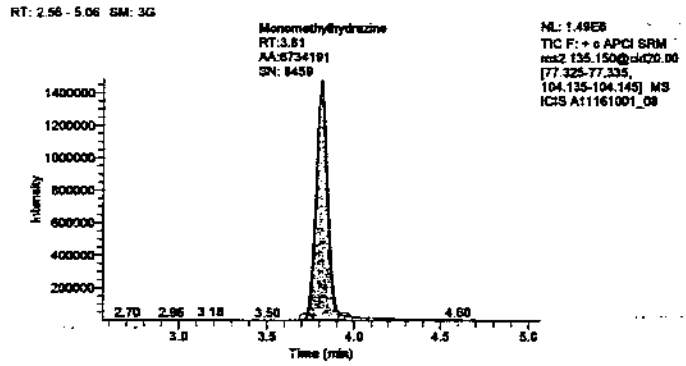
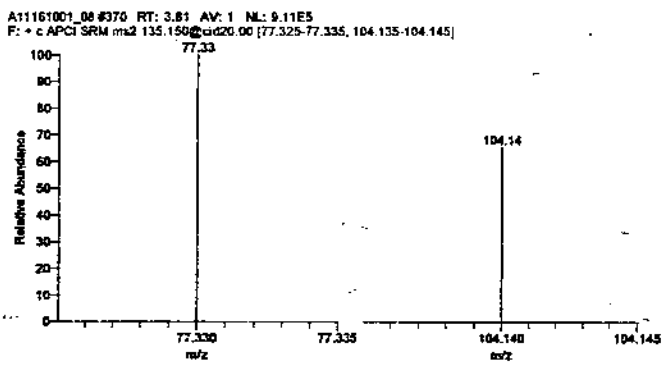
LCMSMS ANALYSIS REPORT

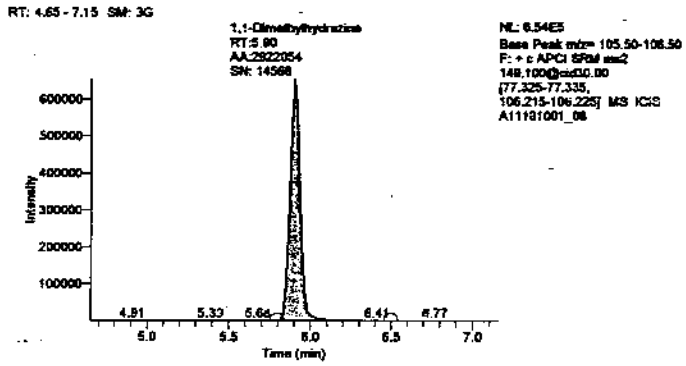
Sample Name:	CAL5		
Data File:	A11161001_08	Acquisition Date:	06/10/11 05:54:22 PM
Sample Type:	Std Bracket	Sample ID:	CAL5
Run Time(min):	10.99	Vial:	A:7
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

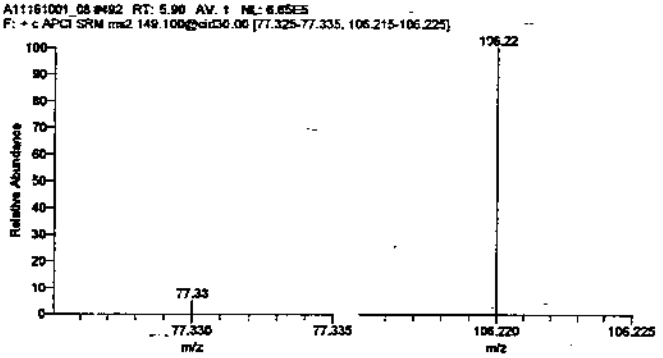
Quan Peak Table

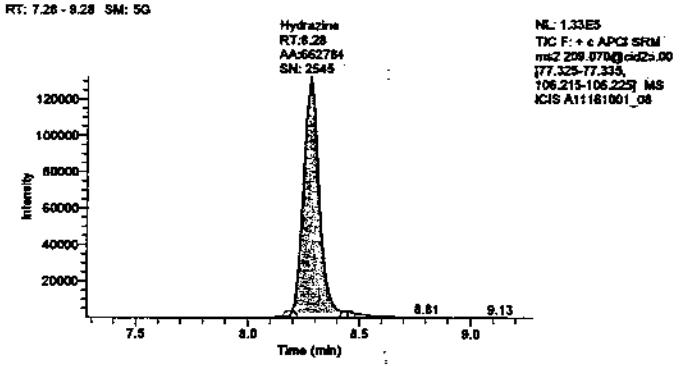
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	24.527	ug/L	6734190.513	3.81
1,1-Dimethylhydrazine	24.120	ug/L	2922053.788	5.90
Hydrazine	4.947	ug/L	662784.461	8.28

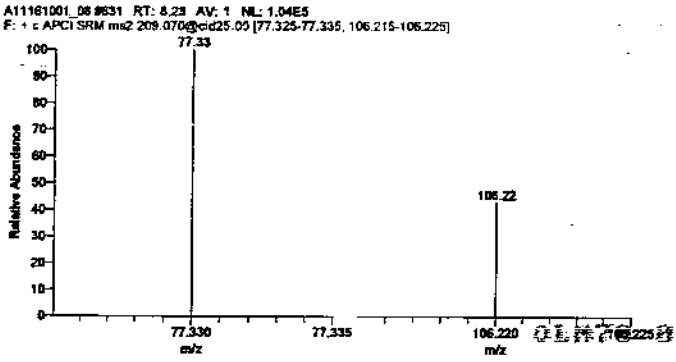












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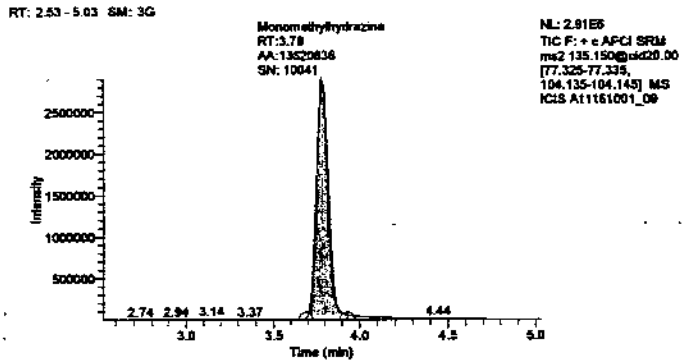
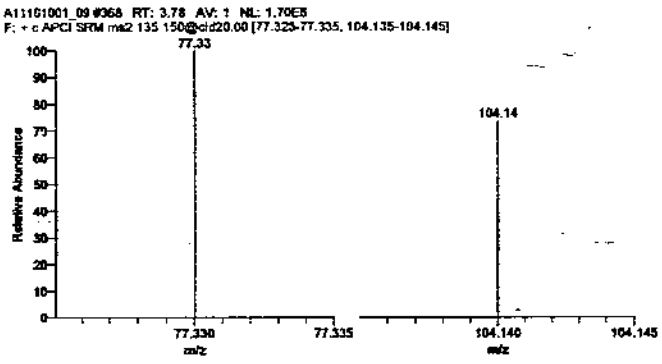
LCMSMS ANALYSIS REPORT

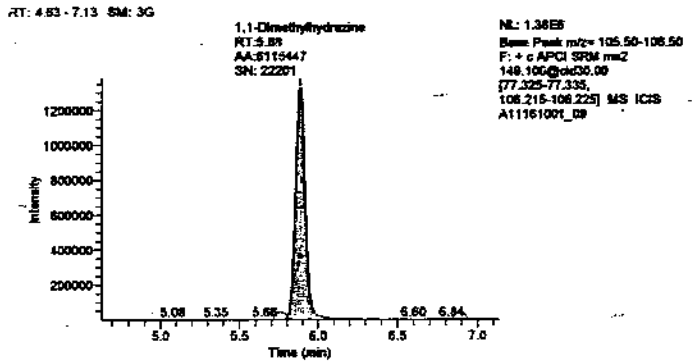
Sample Name:	CAL6		
Data File:	A11161001_09	Acquisition Date:	06/10/11 06:10:05 PM
Sample Type:	Std Bracket	Sample ID:	CAL6
Run Time(min):	10.99	Vial:	A:8
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

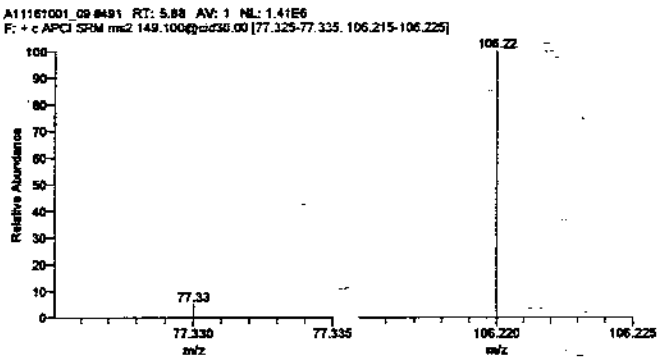
Quan Peak Table

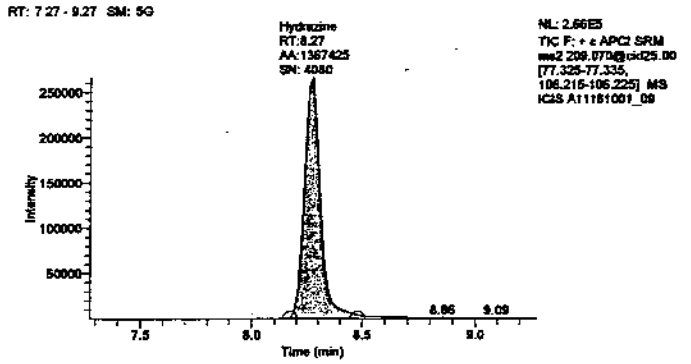
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	49.648	ug/L	13620836.255	3.78
1,1-Dimethylhydrazine	50.353	ug/L	6115447.273	5.88
Hydrazine	10.194	ug/L	1367424.963	8.27

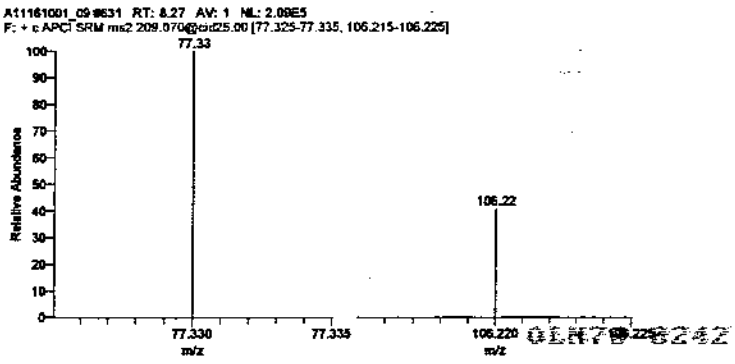












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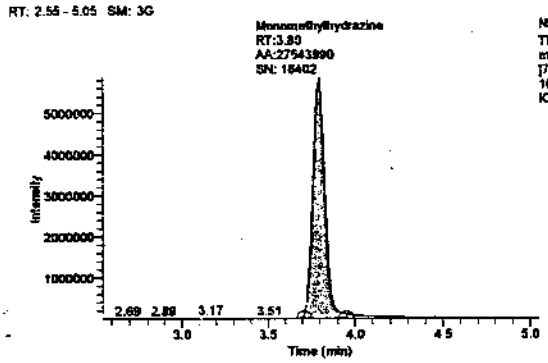
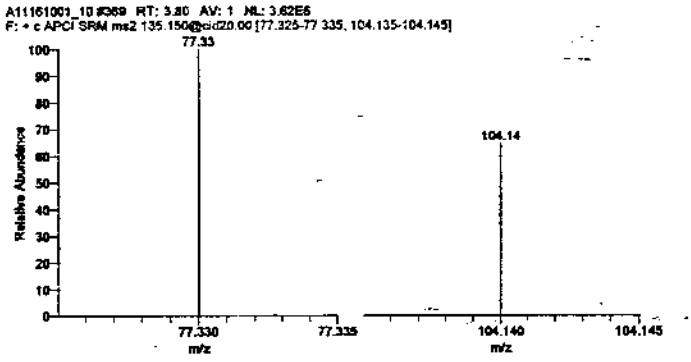
LCMSMS ANALYSIS REPORT

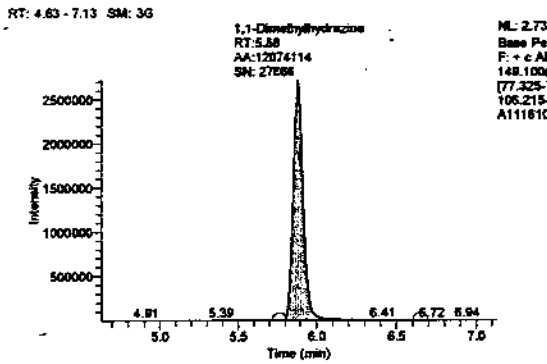
Sample Name:	CAL7		
Data File:	A11161001_10	Acquisition Date:	06/10/11 06:25:49 PM
Sample Type:	Std Bracket	Sample ID:	CAL7
Run Time(min):	10.99	Vial:	A:9
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

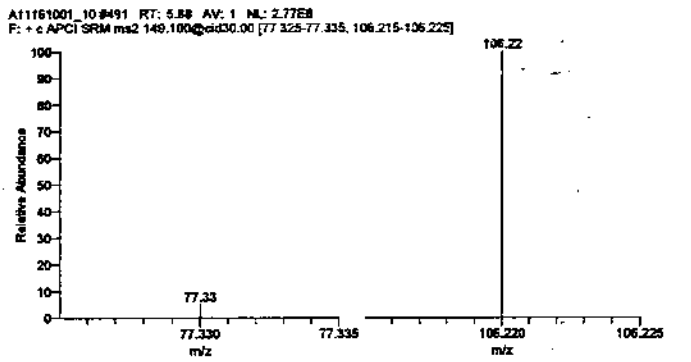
Quan Peak Table

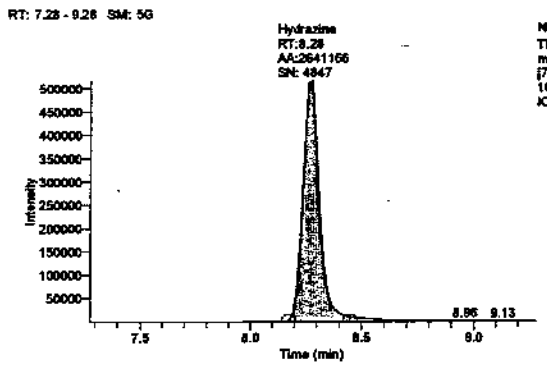
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	100.435	ug/L	27543990.240	3.80
1,1-Dimethylhydrazine	99.304	ug/L	12074114.063	5.88
Hydrazine	19.677	ug/L	2641166.406	8.28

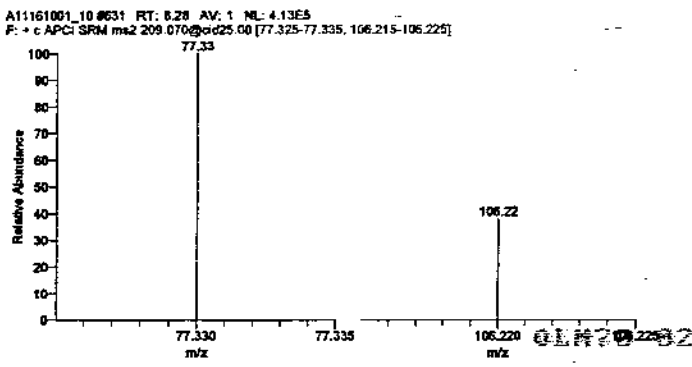












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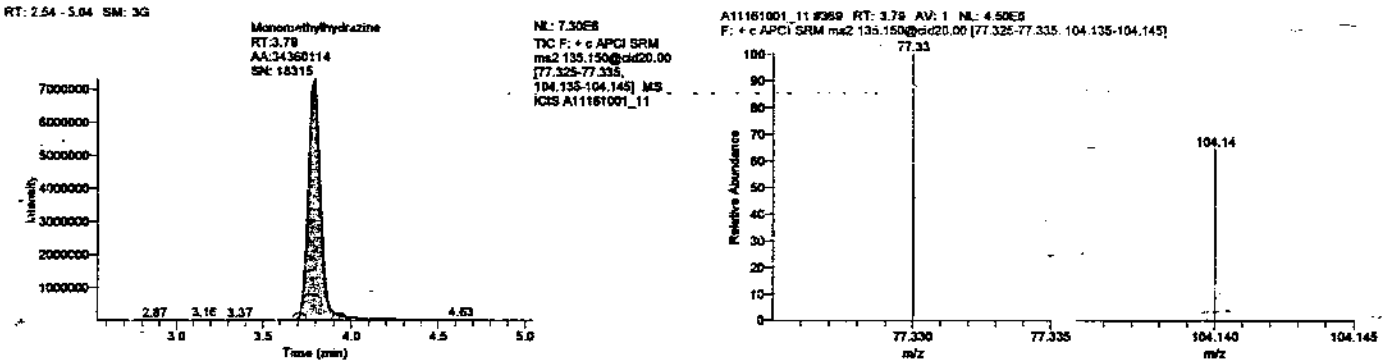
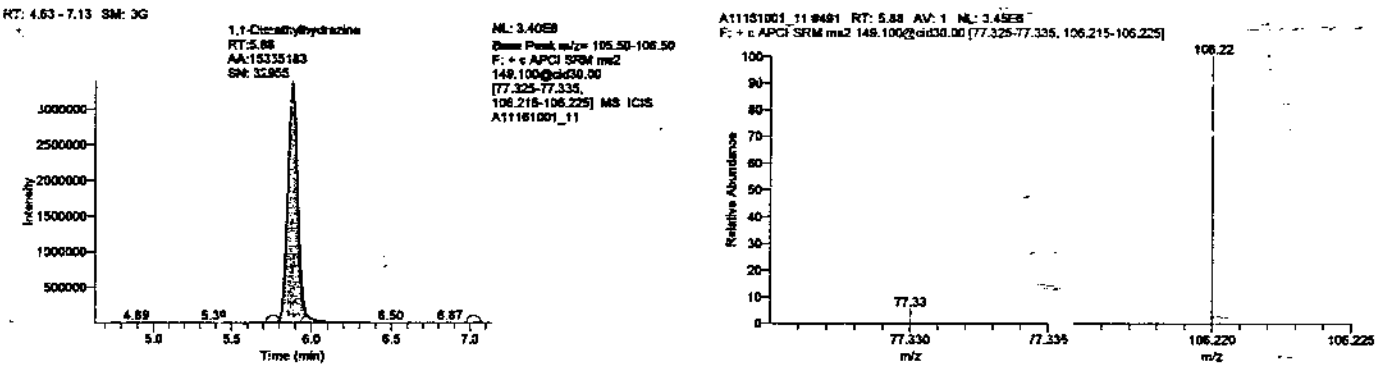
LCMSMS ANALYSIS REPORT

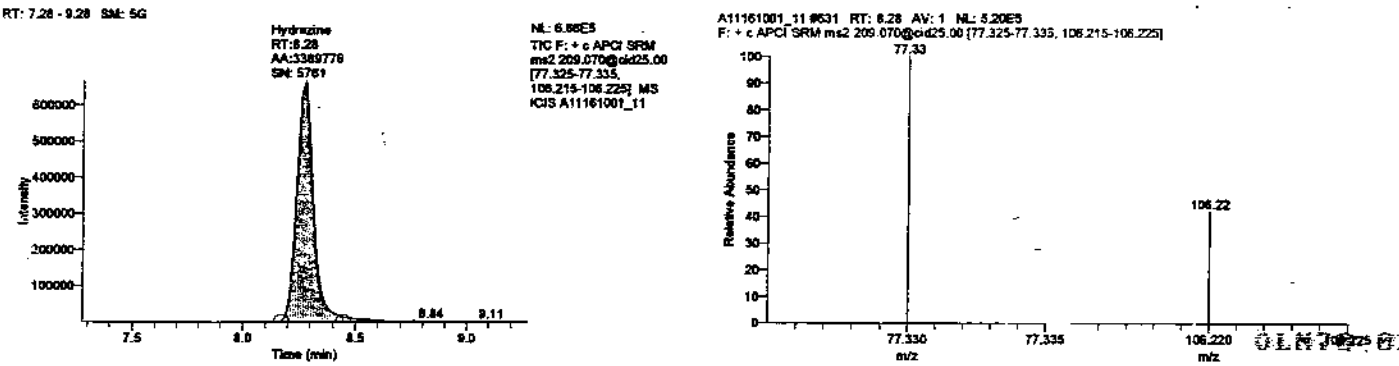
Sample Name:	CAL8		
Data File:	A11161001_11	Acquisition Date:	06/10/11 06:41:32 PM
Sample Type:	Std Bracket	Sample ID:	CAL8
Run Time(min):	10.98	Vial:	A:10
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	125.298	ug/L	34360113.827	3.79
1,1-Dimethylhydrazine	126.258	ug/L	15355182.581	5.88
Hydrazine	25.251	ug/L	3389775.575	8.28







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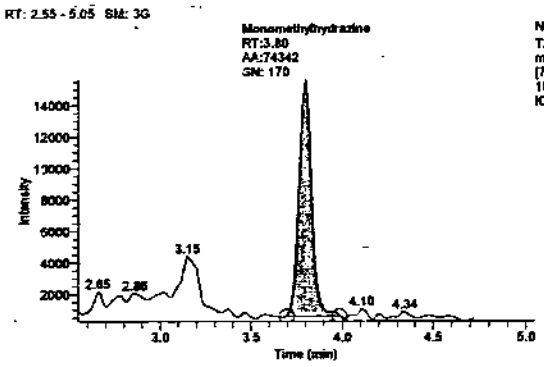
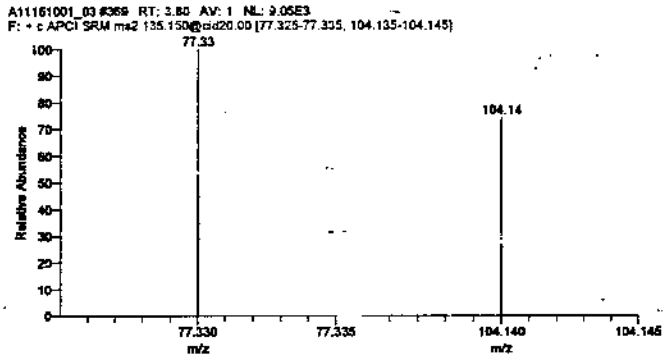
LCMSMS ANALYSIS REPORT

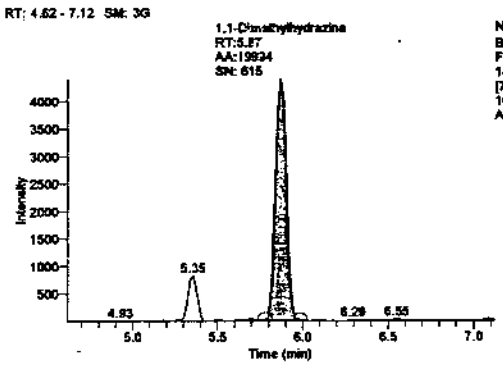
Sample Name:	SYS(MDL)		
Data File:	A11161001_03	Acquisition Date:	06/10/11 04:35:45 PM
Sample Type:	Unknown	Sample ID:	SYS(MDL)
Run Time(min):	10.99	Vial:	A:2
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

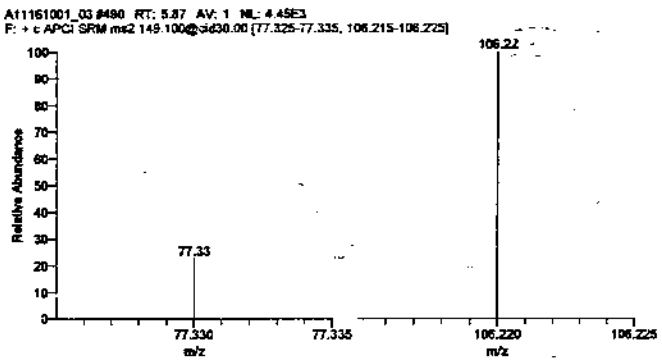
Quan Peak Table

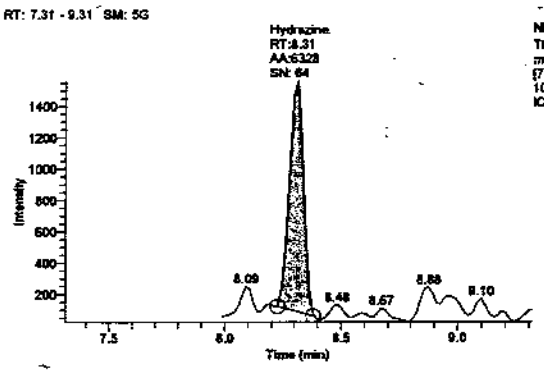
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	0.234	ug/L	74342.155	3.80
1,1-Dimethylhydrazine	0.279	ug/L	19994.208	5.87
Hydrazine	0.060	ug/L	6327.782	8.31

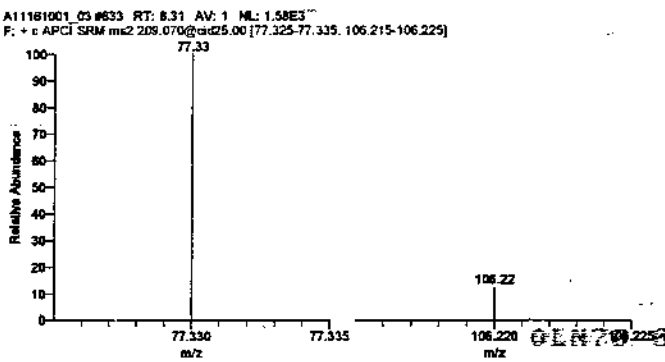












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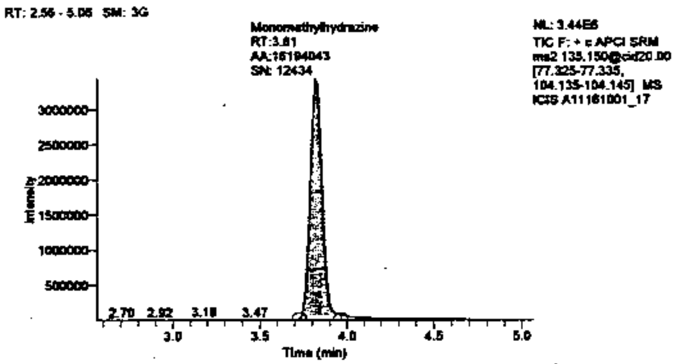
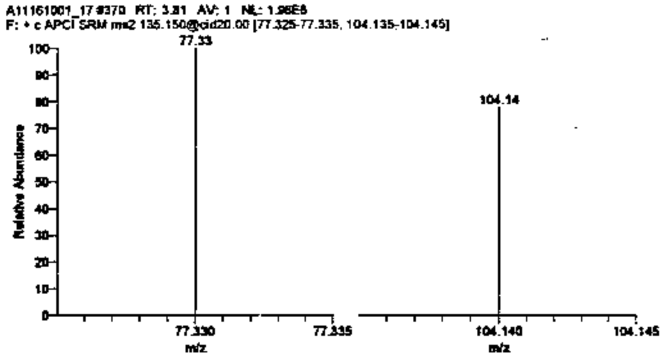
LCMSMS ANALYSIS REPORT

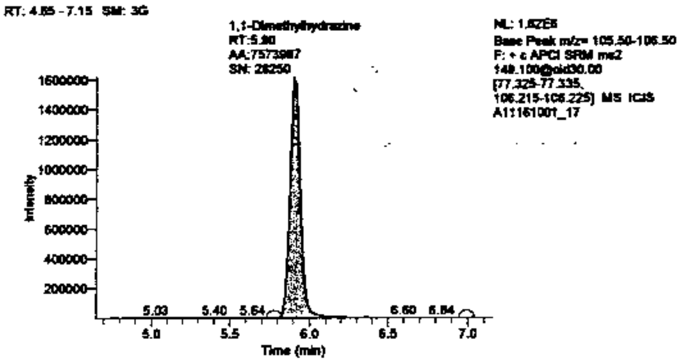
Sample Name:	ICV/LCS		
Data File:	A11161001_17	Acquisition Date:	06/10/11 08:16:01 PM
Sample Type:	Unknown	Sample ID:	ICV/LCS
Run Time(min):	10.99	Vial:	a:12
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

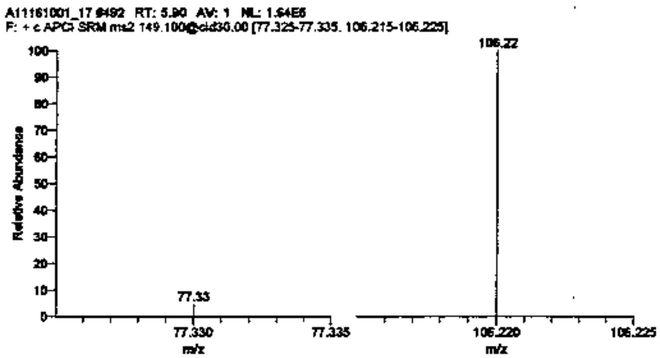
Quan Peak Table

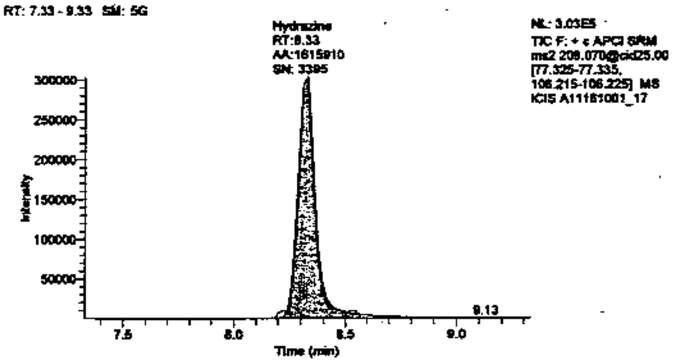
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	59.034	ug/L	16194042.799	3.81
1,1-Dimethylhydrazine	62.335	ug/L	7573987.066	5.90
Hydrazine	12.044	ug/L	1615910.437	8.33

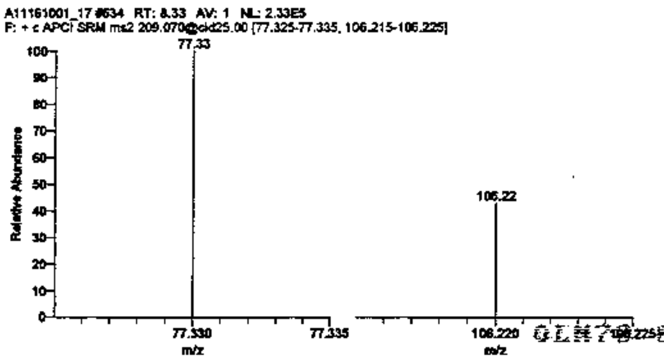












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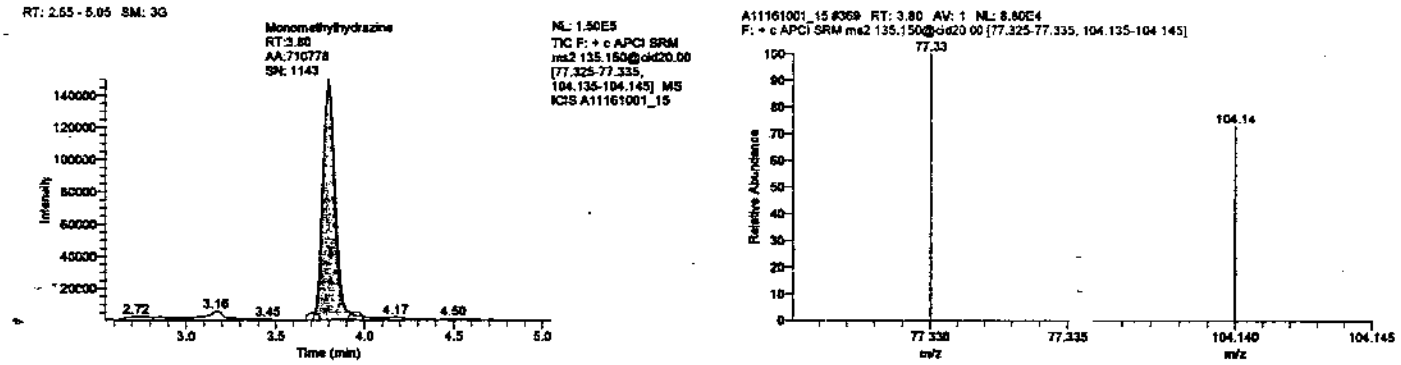
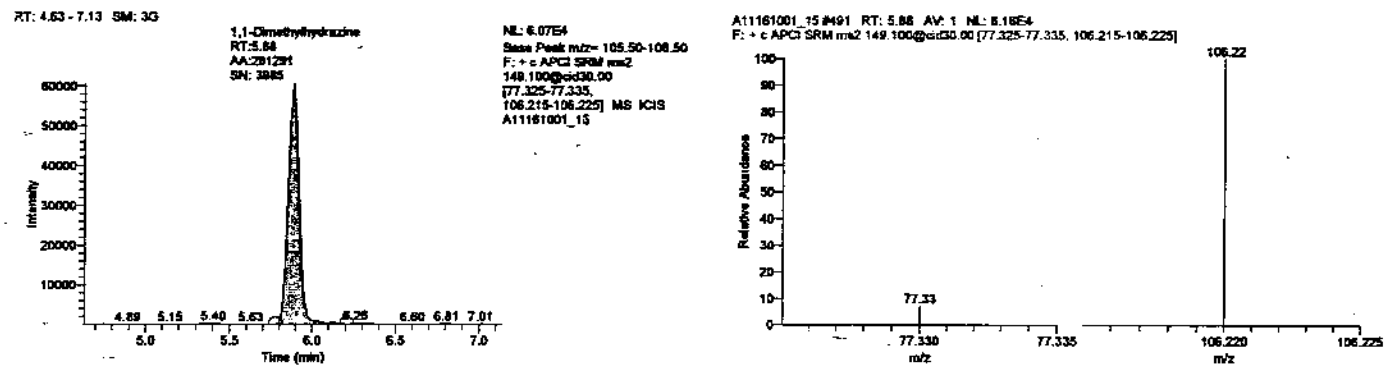
LCMSMS ANALYSIS REPORT

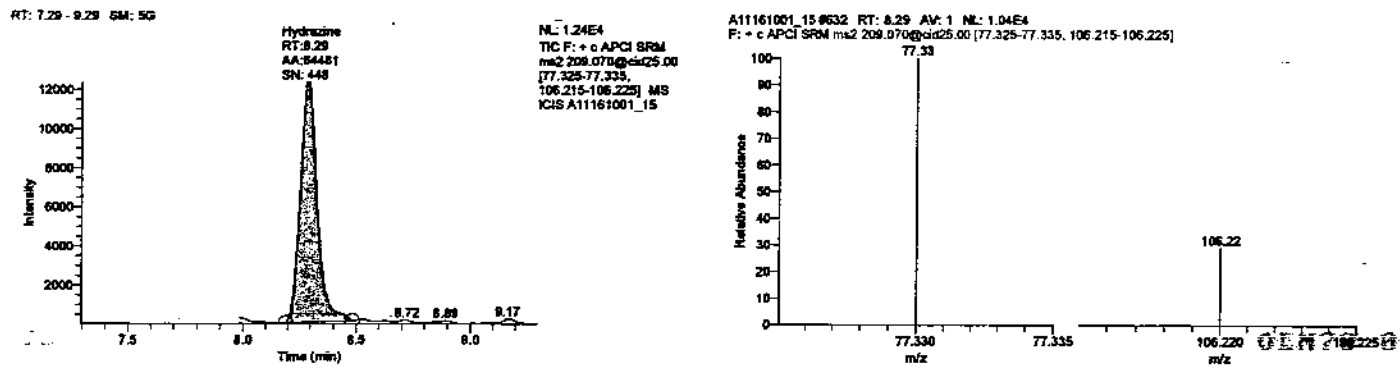
Sample Name:	CCV1		
Data File:	A11161001_15	Acquisition Date:	06/10/11 07:44:31 PM
Sample Type:	QC	Sample ID:	CCV1
Run Time(min):	10.99	Vial:	a:5
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	2.556	ug/L	710777.726	3.80
1,1-Dimethylhydrazine	2.426	ug/L	281290.711	5.88
Hydrazine	0.493	ug/L	64481.083	8.29







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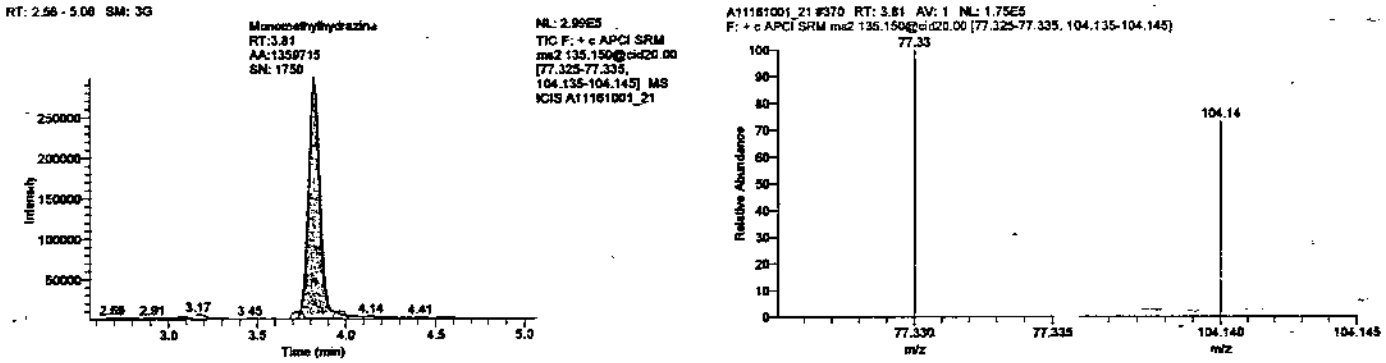
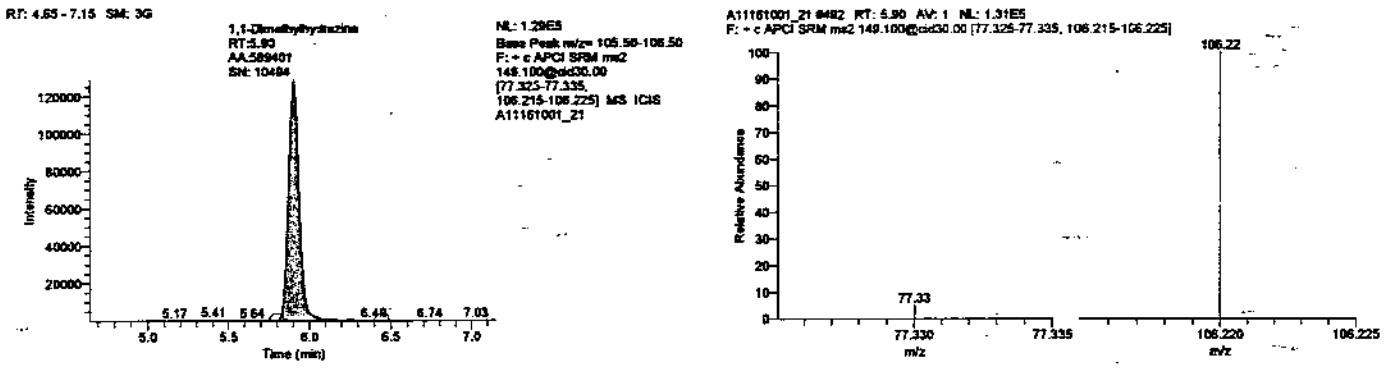
LCMSMS ANALYSIS REPORT

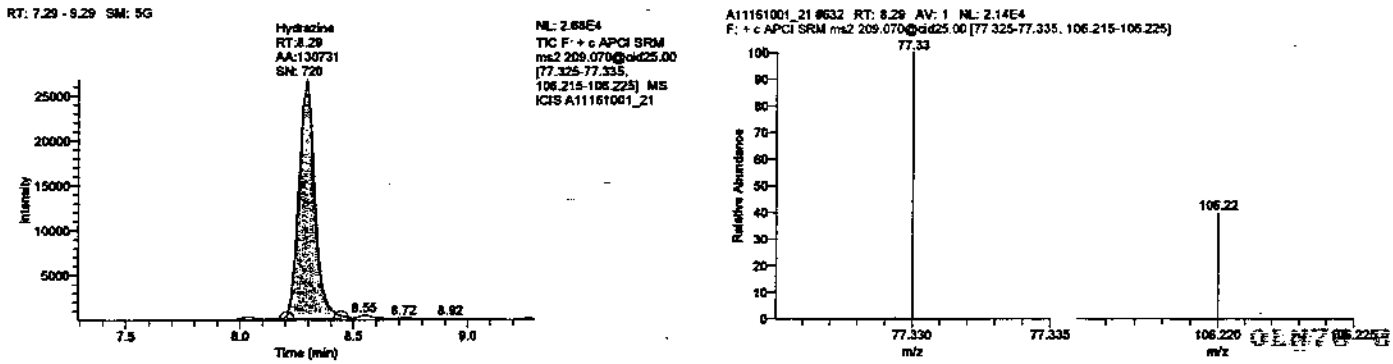
Sample Name:	CCV2		
Data File:	A11161001_21	Acquisition Date:	06/10/11 09:18:58 PM
Sample Type:	QC	Sample ID:	CCV2
Run Time(min):	10.98	Vial:	a:6
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	4.923	ug/L	1359715.045	3.81
1,1-Dimethylhydrazine	4.957	ug/L	589400.902	5.90
Hydrazine	0.986	ug/L	130730.530	8.29







Monday, June 13, 2011, 11:20:41

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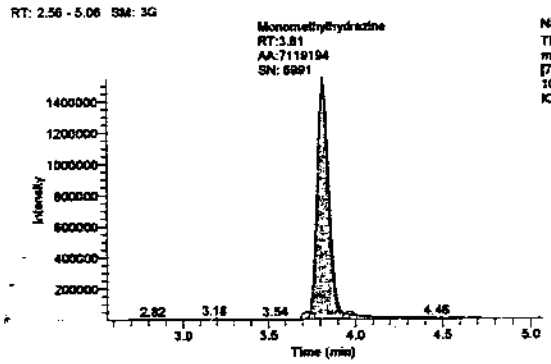
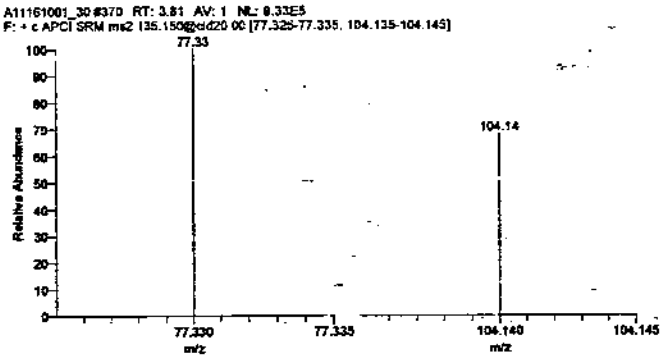
LCMSMS ANALYSIS REPORT

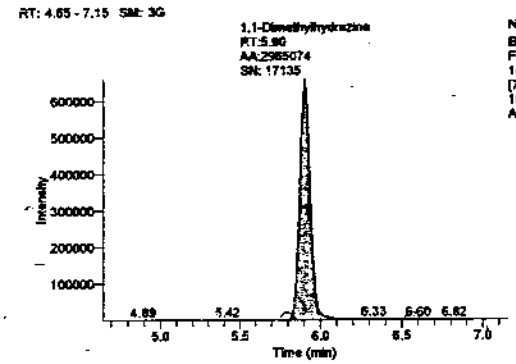
Sample Name:	CCV3		
Data File:	A11161001_30	Acquisition Date:	06/10/11 11:40:40 PM
Sample Type:	QC	Sample ID:	CCV3
Run Time(min):	10.99	Vial:	a:7
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

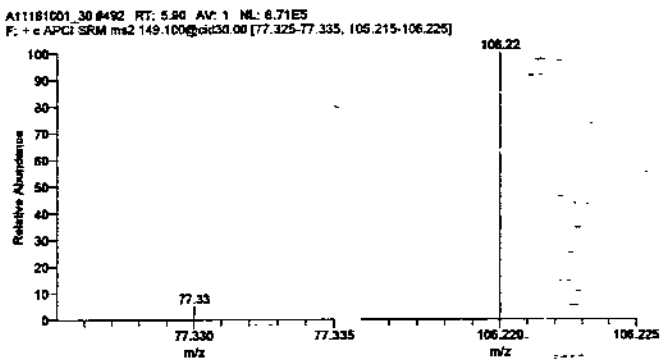
Quan Peak Table

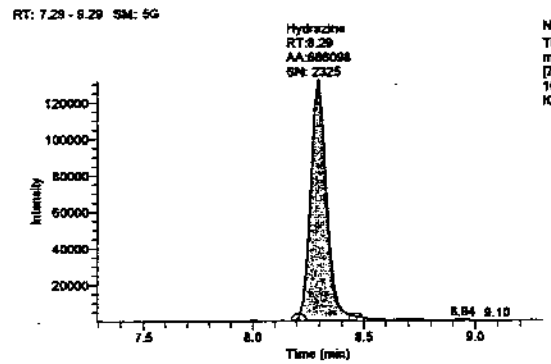
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	25.932	ug/L	7119193.602	3.81
1,1-Dimethylhydrazine	24.473	ug/L	2965073.856	5.90
Hydrazine	4.972	ug/L	666098.454	8.29

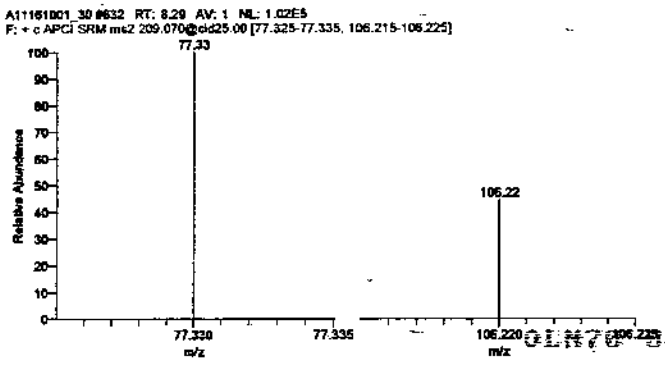












Raw QC Data

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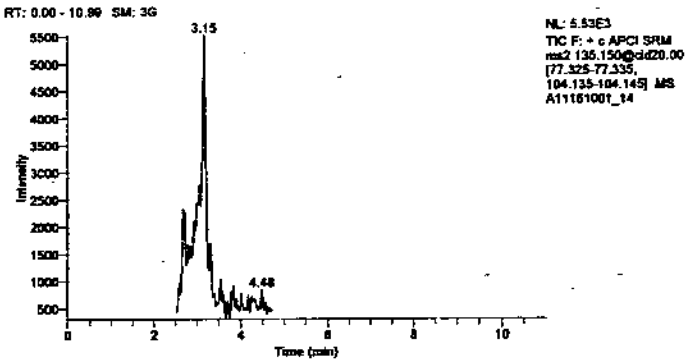
LCMSMS ANALYSIS REPORT

Sample Name:	BLK (reagent)		
Data File:	A11161001_14	Acquisition Date:	06/10/11 07:28:47 PM
Sample Type:	Blank	Sample ID:	BLK (reagent)
Run Time(min):	10.99	Vial:	a:11
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Hydrazine	N/A	ug/L	N/A	N/A
1,1-Dimethylhydrazine	N/A	ug/L	N/A	N/A
Monomethylhydrazine	N/A	ug/L	N/A	N/A



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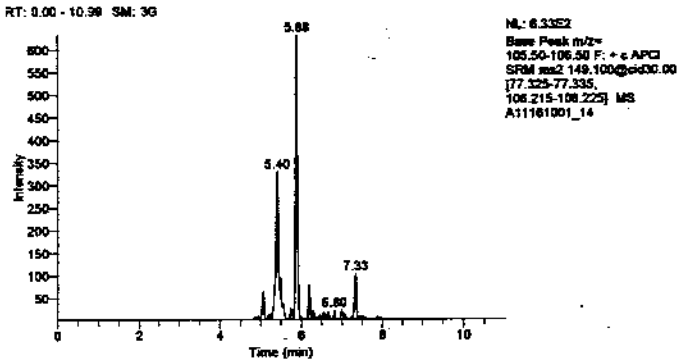

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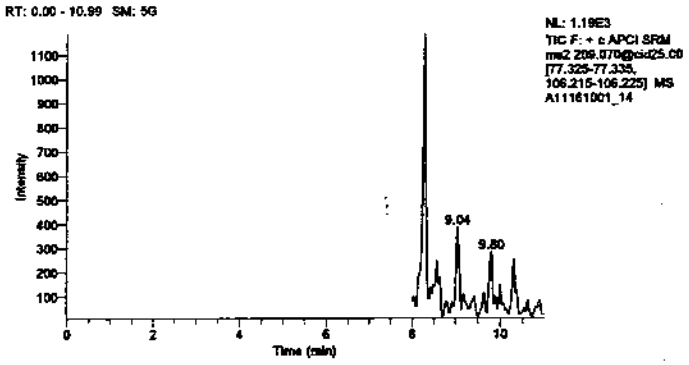

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QLNT0 8251

6/14/20

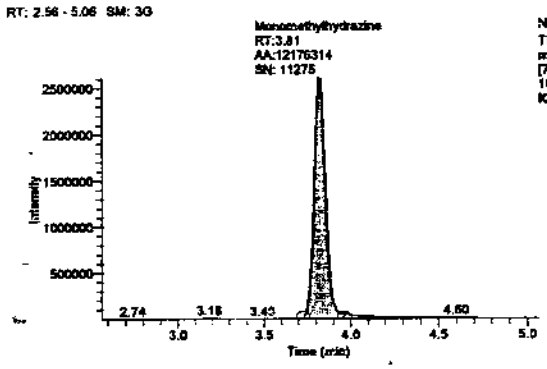
Lancaster Laboratories

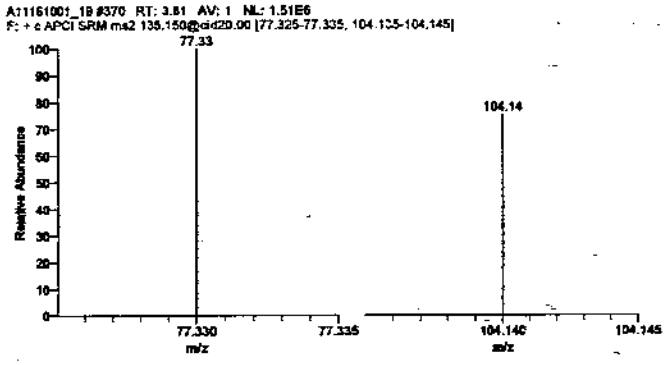
LCMSMS ANALYSIS REPORT

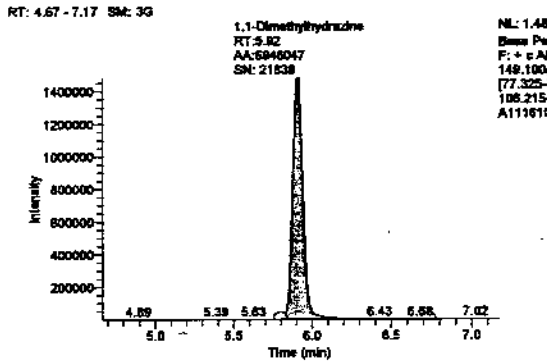
Sample Name:	6308069MS		
Data File:	A11161001_19	Acquisition Date:	06/10/11 08:47:29 PM
Sample Type:	Unknown	Sample ID:	6308069MS
Run Time(min):	10.98	Vial:	a:14
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

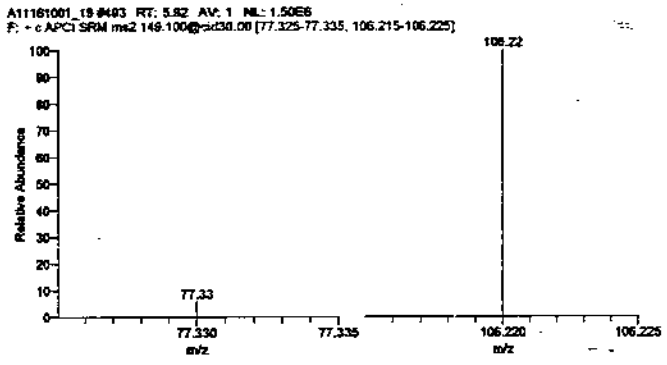
Quan Peak Table

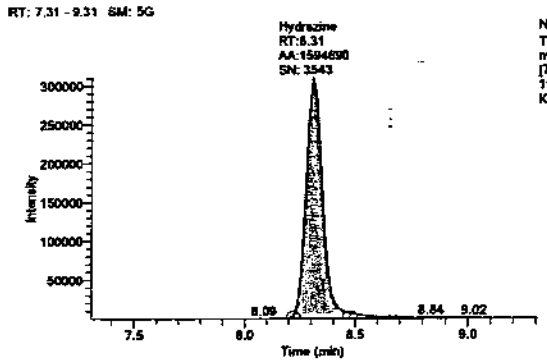
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	44.378	ug/L	12176314.377	3.81
1,1-Dimethylhydrazine	57.177	ug/L	6946046.930	5.92
Hydrazine	11.886	ug/L	1594689.950	8.31

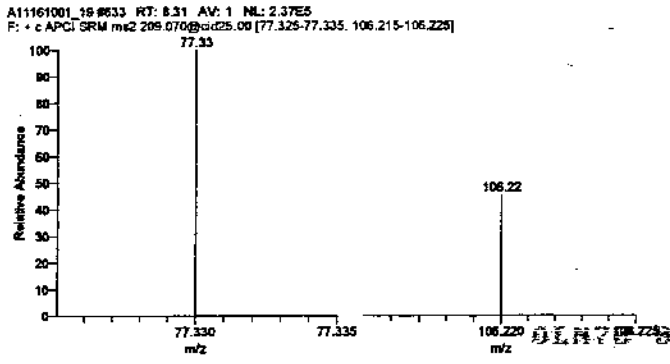












Monday, June 13, 2011, 11:20:50

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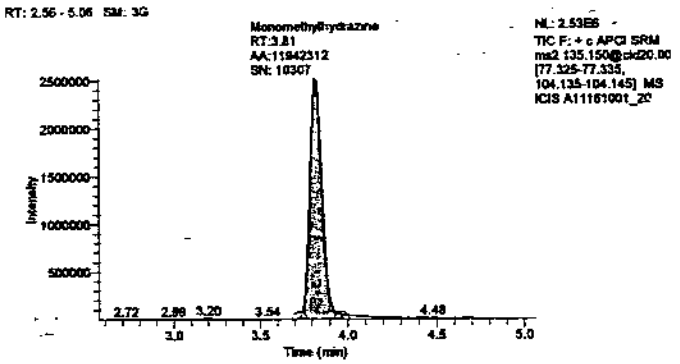
Lancaster Laboratories

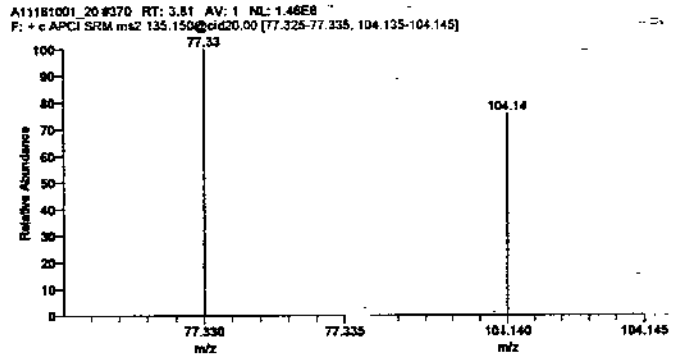
LCMSMS ANALYSIS REPORT

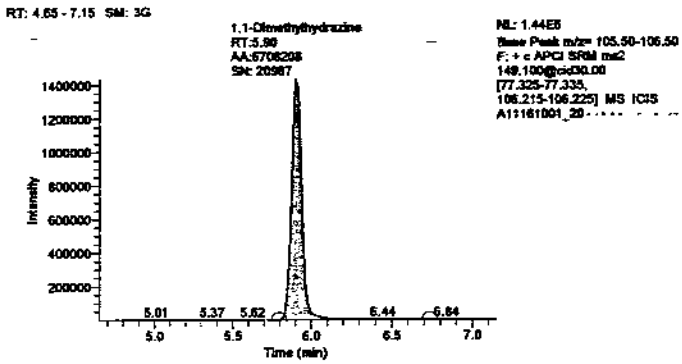
Sample Name:	6308070MSD		
Data File:	A11161001_20	Acquisition Date:	06/10/11 09:03:12 PM
Sample Type:	Unknown	Sample ID:	6308070MSD
Run Time(min):	10.98	Vial:	a:15
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

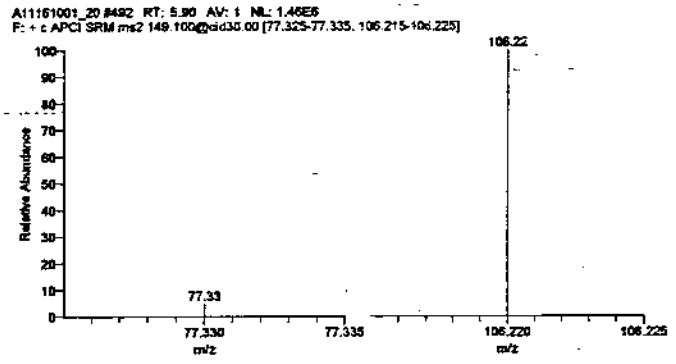
Quan Peak Table

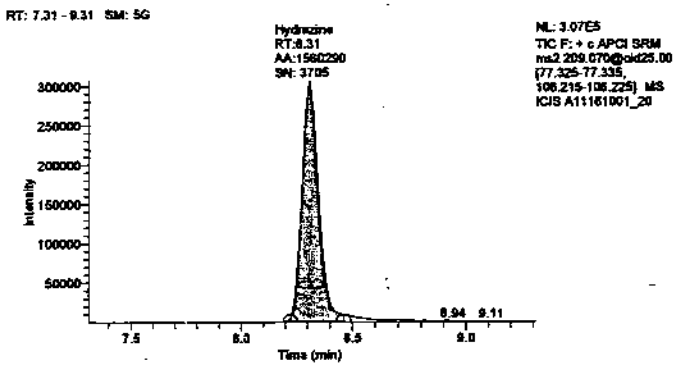
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	43.525	ug/L	11942312.078	3.81
1,1-Dimethylhydrazine	55.223	ug/L	6708207.989	5.90
Hydrazine	11.630	ug/L	1560290.387	8.31

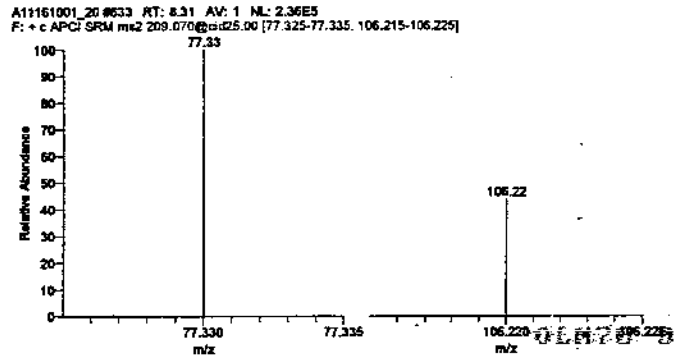












6/14/2011

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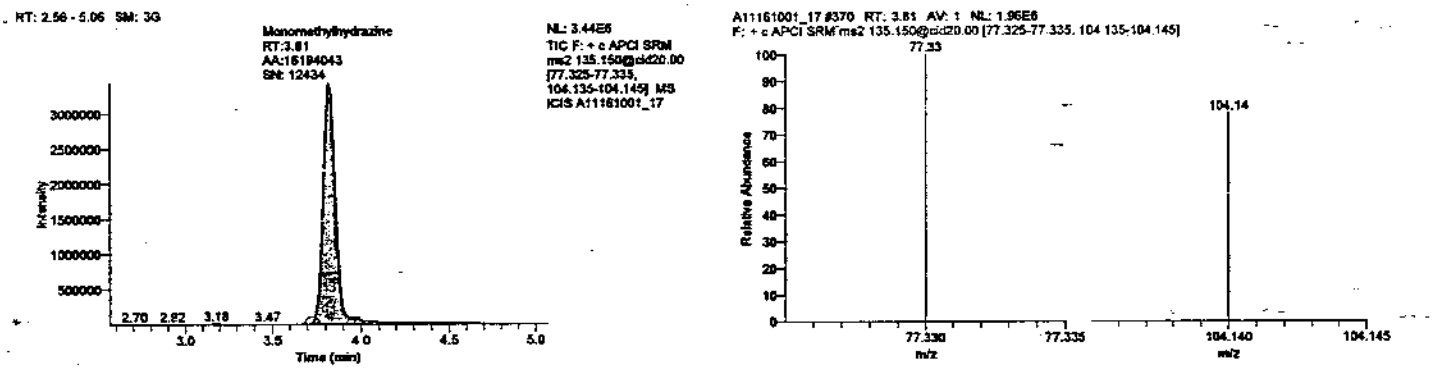
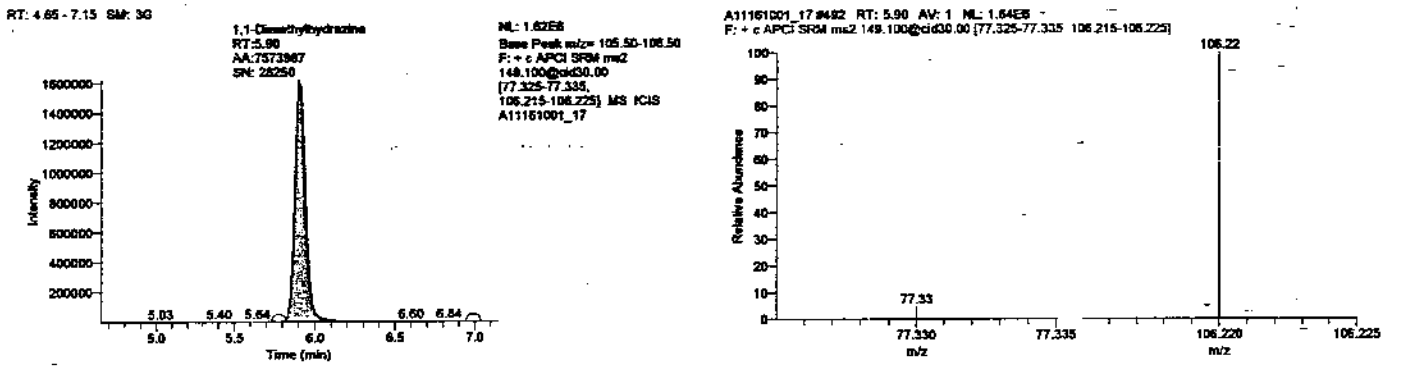
LCMSMS ANALYSIS REPORT

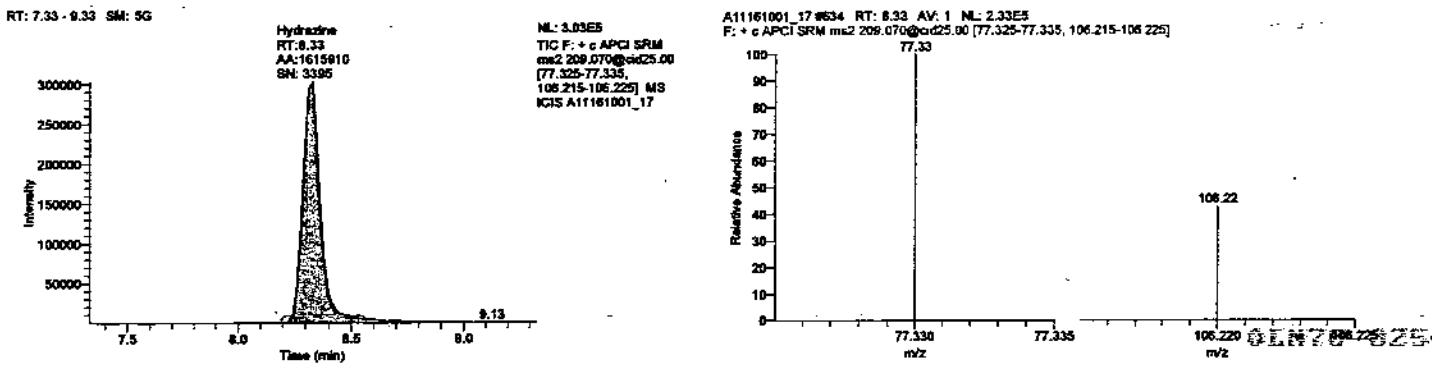
Sample Name:	ICV/LCS		
Data File:	A11161001_17	Acquisition Date:	06/10/11 08:16:01 PM
Sample Type:	Unknown	Sample ID:	ICV/LCS
Run Time(min):	10.99	Vial:	a:12
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

Quan Peak Table

Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	59.034	ug/L	16194042.799	3.81
1,1-Dimethylhydrazine	62.335	ug/L	7573987.066	5.90
Hydrazine	12.044	ug/L	1615910.437	8.33







Monday, June 13, 2011, 11:20:48

6/14/2011

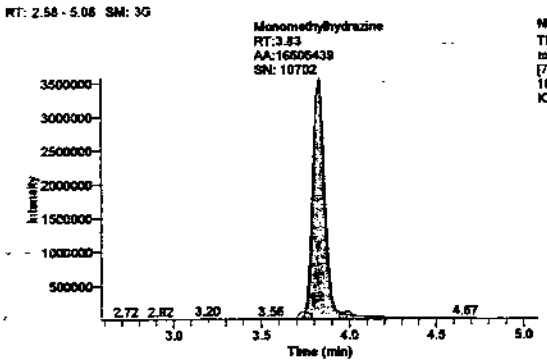
Lancaster Laboratories

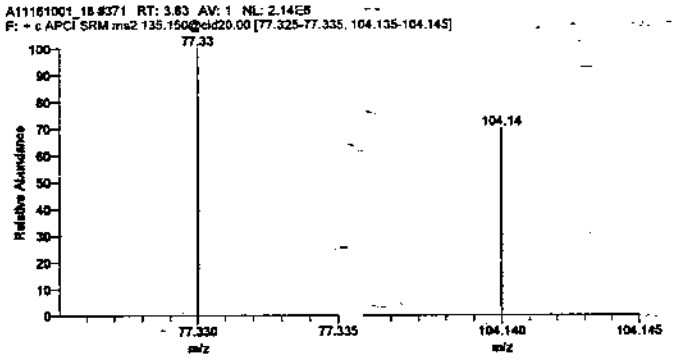
LCMSMS ANALYSIS REPORT

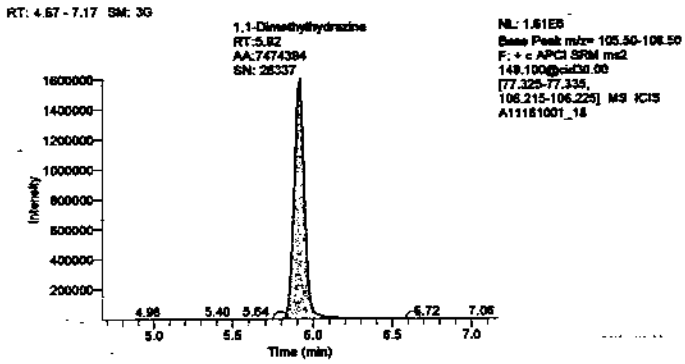
Sample Name:	ICV/LCSD		
Data File:	A11161001_18	Acquisition Date:	06/10/11 08:31:45 PM
Sample Type:	Unknown	Sample ID:	ICV/LCSD
Run Time(min):	10.99	Vial:	a:13
Injection Volume(µl):	5.00	Instrument Software Version:	1.4.1
Dilution Factor:	1.00	Instrument Name:	Quantum
Instrument Model:	TSQ Quantum Access	Instrument Serial Number:	TQU01408
Instrument Method:	C:\XCalibur\Hydrazine Analysis\Hydraz_02	Original Data Path:	C:\XCalibur\Hydrazine Analysis\2011June
Operator:	Quantum		

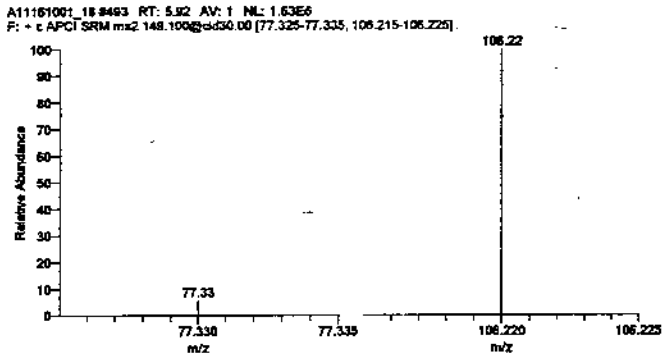
Quan Peak Table

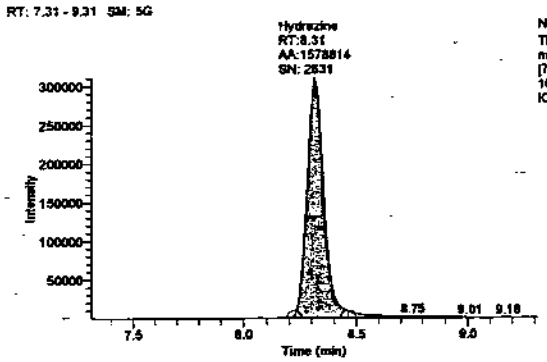
Component Name	Calculated Amount	Units	Response Ratio	RT
Monomethylhydrazine	60.538	ug/L	16606439.421	3.83
1,1-Dimethylhydrazine	61.517	ug/L	7474393.916	5.92
Hydrazine	11.768	ug/L	1578813.767	8.31

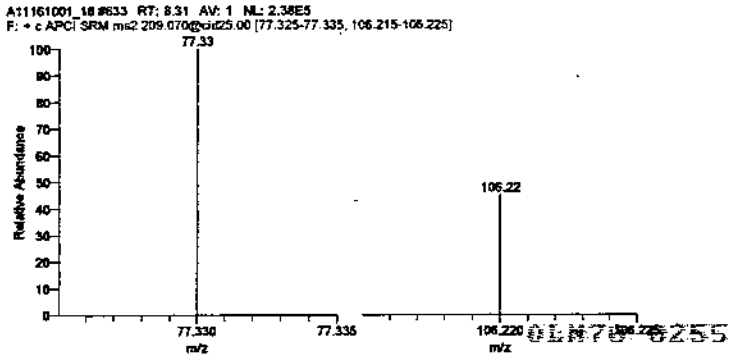












Monday, June 13, 2011, 11:20:49

6/14/2011

Preparation Logs

Organic Extraction Batchlog Assigned to: 2628 Meng Yu

Reviewed by: [illegible] Start Date: 6/10/11 Start time: 1200

11161001

Tech 1: MY 2628 Tech 2: _____

Dept: 37	Prep Analysis: 00000				Hydrazines in Water						
QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6308069MS	SD1--	1	NA	NA	125952-16e	0.01	1.5	5.0		145a	
6308070MSD	SD1--	1	NA	NA	✓	0.01	1.5	5.0		145a	
BLANKA	BLK161001	1	NA	NA	NA	NA	1.5	5.0		NA	
LCSA	OPR161001	1	NA	NA	125952-16e	0.01	1.5	5.0		NA	
LCSDA		1	NA	NA	✓	0.01	1.5	5.0		NA	

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6308068BKG	SD1--	1	NA	NA	1.5	5.0		145a		10342	06/17/2011	P
2	6308071	SD1-D	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
3	6308072	SD4--	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
4	6308073	SD9--	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
5	6308074	PZ16R	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
6	6308075	PZ17R	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
7	6308076	-SD-1	1	NA	NA	1.5	5.0		✓		10342	06/17/2011	P
8	6309549	11XXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
9	6309550	5-XXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
10	6309551	8AXXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
11	6309552	8-XXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
12	6309553	1-XXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
13	6309554	2-XXX	1	NA	NA	1.5	5.0		✓		10342	06/20/2011	P
14	6310724	MMB-2	1	NA	NA	1.5	5.0		✓		10342	06/21/2011	P
15	6310725	MMB-3	1	NA	NA	1.5	5.0		✓		10342	06/21/2011	P
16	6310726	MMB-6	1	NA	NA	1.5	5.0		✓		10342	06/21/2011	P
17	6310727	EBK19	1	NA	NA	1.5	5.0		✓		10342	06/21/2011	P

Rack ID:		Work Station	
Internal Standard		Balance #	

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	11161001

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume